

Vol 60 (2011)

ISSN 0959-4787

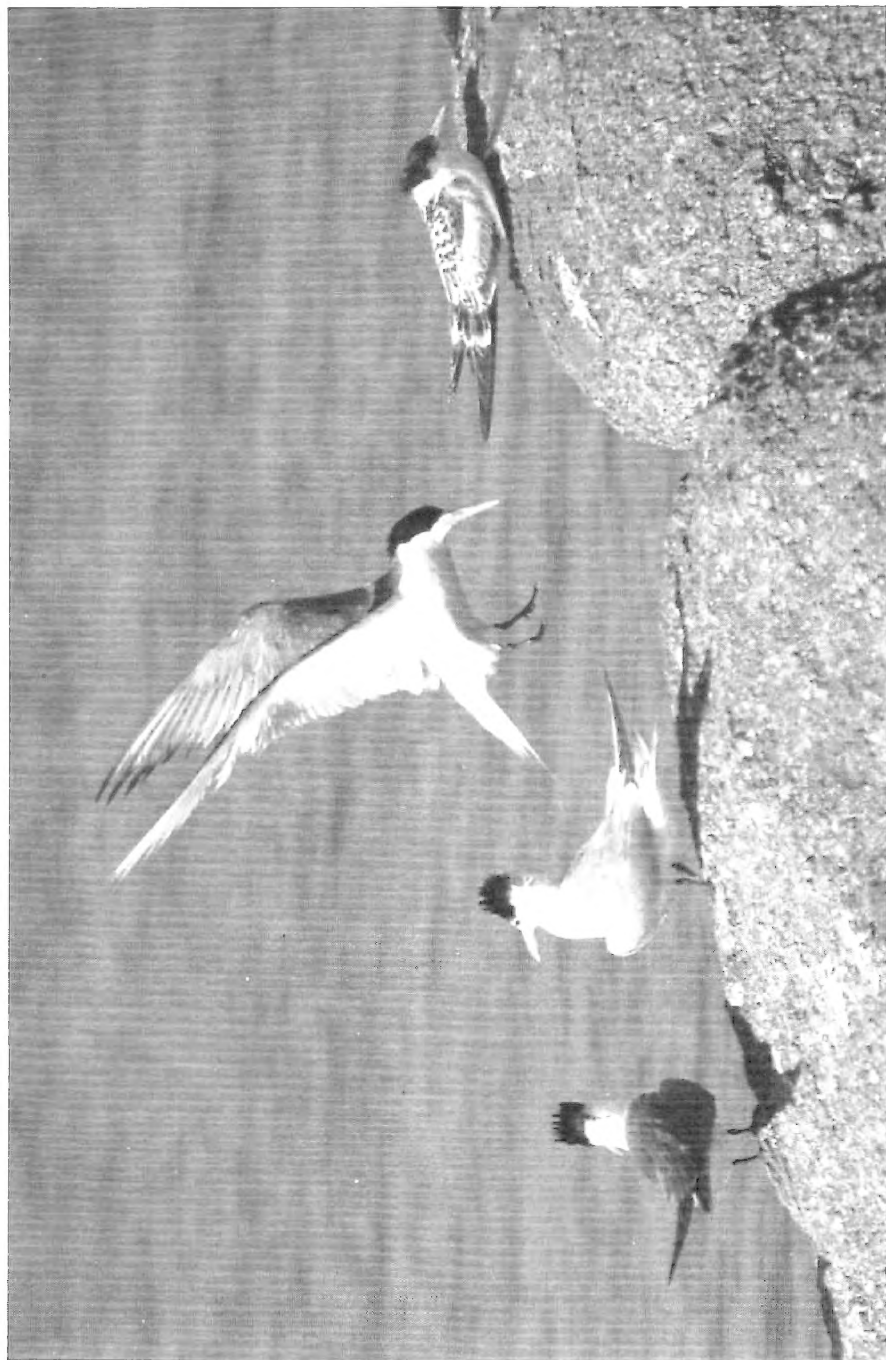


# Sea Swallow

Annual Report of the Royal Naval Birdwatching Society



£12 (US\$22)



Crested Terns *Sterna bergii*. Adult and immature, Encounter Bay, South Australia, 12 February 2008. Photo: Neil Cheshire.

**OFFICERS OF THE ROYAL NAVAL BIRDWATCHING SOCIETY**

(Registered Charity No. 207619)

[www.rnbws.org.uk](http://www.rnbws.org.uk)

*Patron:*

His Royal Highness The Duke of Edinburgh, KG, KT, OM, GBE

*President:*

Vice Admiral Sir David Dobson, KBE

*Vice Presidents:*

The Master, The Honourable Company of Master Mariners

Captain P Duncan Royal Navy

**Executive Committee**

**Chairman:** RAdm Martin Alabaster, Flag Officer Scotland, Northern England and Northern Ireland, HM Naval Base, Clyde, HELENSBURGH, Scotland

**Vice Chairman RN:** Cdre Chris Peach RN, Old School House, Curtisknowle, TOTNES, Devon, TQ7 7JU E [peachcc@aol.com](mailto:peachcc@aol.com)

**Vice Chairman MN and Seabird Records Coord:** Capt Neil Cheshire MN, 7 Hodge Avenue, Encounter Bay, South Australia 5211, Australia E [diomedea@bigpond.com](mailto:diomedea@bigpond.com)

**Secretary:** Stuart Lawrence 86 Titchfield Road, Stubbington, FAREHAM, Hants PO14 2JE

**Honorary Treasurer:** CPO Steve Copsey, 20, Shephards Close, FAREHAM, Hants PO14 3AJ. T 01329 319213. E [copsey@tesco.net](mailto:copsey@tesco.net)

**Editor of Sea Swallow:** Gary Lewis, 40 Pondfield Road, SALTASH, Cornwall PL12 4UA E [gary.lewis@cornwallwildlifetrust.org.uk](mailto:gary.lewis@cornwallwildlifetrust.org.uk)

**Field Trips Co-ordinator:** CPO Mark Cutts, 131 Browning Close, PORTSMOUTH Hants PO6 4PG E [blighty2@ntlworld.com](mailto:blighty2@ntlworld.com)

**Landbirds Records Coordinator:** Lt Chris Patrick RN, 91 Goldcroft Rd, WEYMOUTH, Dorset DT4 0EA E [chriskpatrick@talktalk.net](mailto:chriskpatrick@talktalk.net)

For details of Local Representatives and other useful addresses, see back page.

**Aims and Activities:** The primary aim of the Society is to promote a forum for the exchange of information on seabirds, and of landbirds at sea, by members for whom birdwatching is a spare-time recreation and hobby. The secondary aim is to co-ordinate the efforts of individual members using standardised recording methods so that observations can be of value to the professional ornithologist ashore. In addition to the promotion of observations afloat, the RNBWS organises fieldwork and expeditions, usually in cooperation with the Army and RAF Ornithological Societies.

**Membership:** has been widened from the RN to include those, regardless of nationality, who share a common background of the sea. Instructions for joining can be found on the Society Website and at the back of *Sea Swallow*.

**Subscription Rates:** Full and associate members £12 annually. Due 1 January.

Library rates: Cost of *Sea Swallow*, (£12) plus postage.

**RNBWS Record Forms** - can be found on the Society Website at [www.rnbws.org.uk](http://www.rnbws.org.uk). Completed forms should be sent to the Sec or Editor of SS for onward transmission.

**Material for publication** in *Sea Swallow* should be sent to the Editor. Instructions to authors can be found towards the back of this issue.

## CONTENTS

CHAIRMAN'S FOREWORD	4
EDITORIAL	5
NOTES ON SEABIRD REPORTS RECEIVED 20010/11 Neil Cheshire	6
LANDBIRDS FROM SHIPS AT SEA 2004-2010 Lt Chris Patrick	28
BRITISH INDIAN OCEAN TERRITORY POST RNBWS NOVEMBER 2007 EXPEDITION ENVIRONMENTAL UPDATE Pete Carr	41
BIRDS ON A TRIANGULAR VOYAGE BETWEEN CAPE TOWN, GOUGH ISLAND, THE TRISTAN DA CUNHA GROUP AND ST HELENA, 25 JAN-13 FEB 2011 Beau Rowlands	51
COMMON WHITE TERN ON GREEN MOUNTAIN, ASCENSION ISLAND Antony D Tindale	65
PLUMAGE CONTAMINATION ON WANDERING ALBATROSSES - AN AERODYNAMIC MODEL WLC Ticknell	67
A FIVE ALBATROSSES DAY IN THE SOUTH ATLANTIC Steve Copsey	70
BLACK SEA AND MEDITERRANEAN, MARCH 2010 Julian Bell	71
SOOTY TERN GEOLOCATOR	77
MASKED BOOBY RETURN TO THE ASCENSION ISLAND MAINLAND TO BREED Antony Tindale	79
'HONEYMOON FLIGHTS' OF THE SHORT-TAILED SHEARWATER Jaimie Cleeland	81
SOUTH GEORGIA PIPIT Steve Copsey	83
OBSERVATIONS OF SEXUAL DIMORPHISM AMONG THE SOUTHERN GIANT PETRELS MACRONECTES GIGANTEUS OF GOUGH ISLAND John Cooper and Graham C Parker	84



## CHAIRMAN'S FOREWORD

Welcome to this, the 60th issue of *Sea Swallow* for which we must all offer huge thanks to Gary Lewis for his huge efforts despite the pressures of his expanding role in conservation both with the Cornwall Wildlife Trust and as Chairman of the Association of Local Environmental Records Centres.

Despite the challenges still facing the Society - not least the operational tempo keeping Steve Copsey and Mark Cutts deployed to such an extent - activity has continued at a commendable level. I particularly welcome Mark's introduction of the regular newsletter which keeps us abreast of events, opportunities and grants. I am pleased that we have maintained our support to conservation and science through grants to Seawatch SW, to South Georgia Rat Eradication and to Sooty Tern Monitoring in Ascension. These are good initiatives and entirely in keeping with our charter.

2011 has been a significant one for me as I come to the end of my 35 years in the Royal Navy. I completed my final appointment as FOSNNI in early September with much ceremony and sadness as well as the great honour of the composition of a new march in my name from the Royal Marine Band Service. I shall miss the RN hugely of course but also look forward to the future. In any case I plan to remain as Chairman of the RNBWS for a while, at least, if the rest of the Committee can bear it.

My own birding year has been less eventful than its recent predecessors but I have managed to fit a little in with my official duties. My luckiest break was a week in Chile which offered Inca Terns (although no photos to match Neil Cheshire's) and Pacific Boobies from the hotel window. I surrendered the winery visit for 2 hours kayaking around local wetland and enjoyed Black Skimmers at close quarters as well as other more local specialities. In Scotland, an evening with the Peterhead Sea Cadets allowed me to spend an hour at Loch Stathbeg and witness the splendid spectacle of many thousands of Pink Feet returning to their roost, and once again, I spent a splendid day with Tony Crease, his ringers and 2 other members at Cape Wrath. I know he would welcome other RNBWS members joining him on Op Auk in mid summer in future years and there is no better opportunity to get close and personal with Skuas, Divers and others.

As to this edition of *Sea Swallow*, I am pleased to see an increase in seabird reports and a very thorough report on land birds at sea - just what the RNBWS exists to do. There is also a good update on bird life in the Chagos Archipelago, where the RNBWS has been the driver in recent years - and much more to interest the specialist and general reader alike.

**Martin Alabaster**

## EDITORIAL

*Sea Swallow 60* has proved to be a bumper edition with nearly 100 pages of content. I am really pleased as this will be my last as Editor. After 14 years as Editor, I feel it is time to step down and let somebody else have a go. I have been away from the RN for over 4 years and my new career and family are taking much of my time and I feel I can no longer give the time the publication needs. I am grateful for the support of everybody and all the contributors who have made *Sea Swallow* what it is.

I would also like to take this opportunity to thank the publishers during my tenure - Forces and Corporate - and particularly Kerry Wells who has put up with me and my editorial foibles.

The edition has something for everybody; in particular I am delighted to welcome back the landbirds report that has been missing from recent publications. I am also delighted we have articles from regular contributors, Beau Rowlands and Lance Tickell, as well as reports from recipients of the Simpson grant scheme.

One of the strengths of the report in recent years has been the quality of photographs we receive; these make as much of an impact as the articles and this year is no exception. With both Mark Cutts and Steve Copsey serving at sea, there has been no shortage of excellent shots the complement the regular input from Neil Cheshire.

I hope you enjoy this edition. Please continue to provide articles and sightings for the new Editor, David Dobson, so he can carry on producing a publication we can all be proud of.

Gary Lewis



Great Shearwater *Puffinus gravis*.  
South Atlantic. Photo: Mark Cutts.

NOTES ON SEABIRD REPORTS RECEIVED 2010-2011

by Neil Cheshire

This year has seen several new contributors and a very welcome increase in material. The area of greatest activity was around the Falklands and South Georgia visited by our Chairman Martin Alabaster, member Steve Copsey and Simon Cook an ornithological guide aboard expedition vessels. Simon Cook went on to visit all the main Atlantic Islands on his very enviable return voyage to Europe. Julian Bell provided interesting notes from the Black Sea from where we seldom receive reports. The usefulness of observations would be enhanced if observers used the standard RNBWS report sheet or a computer version of this. All observers are thanked for their participation.

Rear Adm M. Alabaster.	HMS <i>Gloucester</i> Falklands-South Georgia and return Jan 2011, 8C.
Capt.M.K.Barritt.RN	m.v <i>Northern Expedition</i> Port Hardy-Prince Rupert BC Canada June 2011, 1C.
Julian Bell	s.v. <i>Geosund</i> , Black Sea March 2010, 2N.
CPO Steve Copsey	HMS <i>York</i> UK-Mediterranean-Gibraltar-Madeira-Falklands-South Georgia -Falklands Feb-July 2011, 11C.
CPO Mark Cutts WO2 Anthony Tindale	HMS <i>St.Albans</i> Mediterranean Sept 2004,1C.
CPO Mark Cutts	HMS <i>Liverpool</i> English Channel. Sept, Nov 2009, Irish Sea-W.coast Scotland April 2010, UK-Azores-USA May 2010, 6C.
Simon G Cook	m.v. <i>Polar Star</i> Falklands-S.Georgia-Antarctic Pen.-Tierra del Fuego.Tierra del Fuego-Antarctic Pen., 3 return voyages. Nov 2010-Jan 2011, 10C. m.v. <i>Le Boreal</i> Tierra del Fuego-Antarctic Pen 3 return voyages Jan-Feb 2011, 6C+2N. m.v. <i>Planicus</i> Tierra del Fuego- Antarctic Peninsula-South Georgia- Gough Is-Tristan da Cunha-St Helena-Ascension I-Cape Verde Is-Madeira,March-April 2011,16C+2N. m.s. <i>Besiktas 1</i> Bosphorus cruise and return ferry trip March 2011, 2N

## *Sea Swallow 60 (2011)*

Peter Fraser	r.v. <i>Agulhas</i> Capetown-Marion I.-Prince Edward I.- Antarctic ice edge-Capetown Nov 2002, 9N.
Capt. Thomas Johannsen	m.s. <i>Fiesta</i> Galveston-Lagos-Pt. Harcourt-Warri-Takoradi April-May 2011, 5C.
WO2 Anthony Tindale	HMS <i>Dauntless</i> English Channel-North Sea April-May 2010, 4C.

Observers are referred to by their initials. Dates refer to 2011 unless otherwise listed. Positions are given in degrees and decimals of degrees of latitude and longitude. nm = nautical miles (1.852 km), Ad = Adult, h = hours, imm = immature, C = census sheets, N = notes.

### **PENGUINS *Spheniscidae***

**King Penguin *Aptenodytes patagonicus*.** SGC observed three at 54.9S 36E, South Georgia on 1 Dec'10, one at King George Island, S. Shetlands on 31 Dec'10, three at 57.7S 64W in northern Drake Passage on 27 March, six in pairs and singles in 4h at 57.2S 43.5W in the Scotia Sea on 2 April, two at 55S 36.1W approaching S. Georgia on 3 April and 200 at 54.8S 35.8W, Cooper Bay, S. Georgia the same day. SC recorded c.3000 at Gold Harbour, S. Georgia on 21 April, 20 at 54.7S 35.7W on 22 April and two at 53.2S 43.1W on 24 April.

**Emperor Penguin *Aptenodytes forsteri*.** PF saw one near the Antarctic ice edge at 54.9S 23.8E on 10 Nov'02.

**Gentoo Penguin *Pygoscelis papua*.** SC saw seven at 51.7S 59.9W, Berkley Sound, Falklands on 27 March, 520 at Bertha's Beach, Falklands on 4 April, one at Gritviken, S. Georgia on 19 April, three at 54.7S 35.7W on 22 April. SGC saw one at 51.7S 57.4W near the Falklands on 25 Nov'10, two at 54.9S 36W when leaving S. Georgia on 1 Dec'10.

**Chinstrap Penguin *Pygoscelis antarctica*.** SGC saw one at 61.2S 64W in southern Drake Passage on 8 Dec'10, 40 in 4h at 61.2S 60.9W, seven at 59S 49.5W in the Scotia Sea on 1 April, six at 57.2S 43.5W the next day and c.3,000 at Cooper Bay, S. Georgia on 3 April. SC observed three at 54.7S 35.7W, S. Georgia on 22 April. PF observed 2500 near the ice edge at 53.9S 25.6E on 10 Nov'02 and 50 at 54S 23E on 11 Nov'02.

**Southern Rockhopper Penguin *Eudyptes chrysocome*.** SGC recorded one at 51.7S 57.4W east of the Falklands on 25 Nov'10, two at 57.8S 63.8W in Drake Passage on 20 Dec'10, three nearby at 58.3S 63.5W on 27 Jan, 485 in 3h at 54.9S 64.3W near Staten Island on 28 Jan, c.20 at 59S 64W on 30 Jan and six at 57.5S 64.1W on 27 March.

**Northern Rockhopper Penguin *Eudyptes moseleyi*.** SGC recorded c.5,000 at 40.3S 12.9W Gough Island on 11 April.

## *Sea Swallow 60 (2011)*

**Macaroni Penguin** *Eudyptes chrysolophus*. Recorded by SC at S.Georgia with 30 at 56.1S 36.5W on 19 April and 120 at 54.7S 35.7W on 22 April. SGC saw eight when departing S.Georgia at 55S 36W on 1 Dec'10, three approaching S.Georgia at 55S 36.1W on 3 April, c.1,500 at Cooper Bay 54.8S 35.8W later the same day.

**Magellanic Penguin** *Spheniscus magellanicus*. SC recorded three at 51.7S 59.9W Berkley Sound, Falklands on 27 March. SGC saw 14 at 51.7S 57.4E east of the Falklands on 25 Nov'10, four at 54.9S 64.3W near Staten Island on 28 Jan, one nearby at 55S 65.7W on 7 Feb.

### **ALBATROSSES** *Diomedidae*

**Wandering Albatross** *Diomedea exulans*. Regularly seen in small numbers by SGC in Drake Passage-Falklands-South Georgia area, with larger counts including four at 52.4S 51.5W Scotia Sea on 26 Nov'10, seven at 53.5S 42.7W on 27 Nov'10, seven in 4h at 57.9S 63.7W on 20 Dec'10, seven in 2h at 55S 36.1W approaching S.Georgia on 3 April. Several records by MA between the Falklands and South Georgia during January including two at 52.8S 47.5W on 18th, two at 53.9S 38.2W on 19th, and small numbers around S.Georgia from 19th to 25th then one at 53.2S 43.5W and two at 53.1S 43.5W on 26th and two at 53.5S 51.1W on 27th. In the South Atlantic SC saw the first at 44.1S 49.9W on 26 March, three at 50.3S 56.5W on 27 March, occasional singles in the Falklands area then two at 51.7S 49.7W and two at 51.6S 48.6W on 17 April, two at 51.6S 42.7W on 18 April, a few in the S.Georgia area then six at 53.9S 37.8W on 23 April, five at 53.2S 43.1W on 24 April and three at 52.1S 51.6W on 25 April. Several were seen during Nov'02 by PF between Cape Town, Marion Island and the ice edge including four at 39.8S 26.5E on the 3rd, 10 at 44S 34E on 5th, two at 48.8S 34E on 8th, 10 at 50.5S 30E on 9th, two at 54S 23E on 12th.

**Tristan (Wandering) Albatross** *Diomedea (exulans) dabbenena*. SGC reported this form on passage from Gough Is to Tristan da Cunha with six in 3h at 44.5S 17.7W on 9 April, nine in 3h at 42.1S 13.1W on 10 April and one at 37.1S 12.1W near Tristan on 12 April.

**Southern Royal Albatross** *Diomedea epomophora*. SC photographed three at 51.2S 58.7W near C.Dolphin, Falklands on 30 March. SGC recorded one at 51.4S 57.4W Scotia Sea on 25 Nov'10, two the next day at 52.4S 51.5W, one at 54.9S 36W S.Georgia on 1 Dec'10, two at 56.9S 41.8W the following day, two in Drake Passage at 57.4S 65.5W on 9 Dec'10, singles at 56.4S 65.7W on 18 Dec'10, at 57.9S 63.7W on 20 Dec'10 and at 62S 59.5W approaching the S.Shetlands on 21 Dec'10, at 54.9S 64.3W on 28 Jan, at 59S 64W on 30 Jan, two at 55S 65.7W on 7 Feb, one at 56.9S 65.7W on 9 Feb, one at 58S 64.1W on 19 Feb, three at 57.7S 64W on 27 March.

**Northern Royal Albatross** *Diomedea sanfordi*. One was seen by PF at 43S 31E between Cape Town and Marion Island on 5 Nov'02. SGC recorded one in Drake Passage at 57.9S 63.7W on 20 Dec'10

**Black-browed Albatross** *Thalassarche melanophris*. The most common albatrosss observed by SCG in Falklands-S.Georgia-Drake Passage area including 55 at 51.6S 57.4W, Scotia Sea on 25 Nov'10, 47 at 57.4S 65.5W in Drake Passage on 9 Dec'10, 12 at 57.9S 63.7W on 20 Dec'10, 16 at 60.1S 64.4W on 5 Jan, 8,250 in 3h at 54.9S 64.3W off Staten Island, 3000+ in 3h

## **Sea Swallow 60 (2011)**

nearby at 55S 65.7W on 7 Feb, 42 at 57.7S 64W on 27 March, 16 at 55S 36.1W approaching S.Georgia on 3 April, 13 at 42.1S 13.1W on 10 April and the last two at 29.3S 9.7W on 16 April. SC saw one at 44.1S 49.8W on 26 March, large numbers around the Falklands from 27 March to 16 April, then on passage to South Georgia one at 51.8S 49.7W and two at 51.7S 48.6W on 17 April, 11 at 51.6S 42.7W on 18 April, 15 at 54.7S 35.7W off S.Georgia. On the return voyage to the Falklands he saw eight at 53.9S 37.8W on 23 April, two at 53.2S 43.1W the next day and one at 52.1S 51.5W on the 25 April. Recorded between South Africa, Marion Island by PF during Nov'02 with larger groups including 10 at 46.7S 17.5E on the 14th, 10 at 39S 16.5E on 16th and 50 at 36S 17.5E the following day.



Black-browed Albatross *Thalassarche melanophrys*. Falkland Islands, 13 Apr 2011.  
Photo: Steve Copsey.

**Shy Albatross *Thalassarche cauta*.** Several observations by PF between Capetown and Marion Island including 20 at 39.8S 26.5E on 3 Nov'02 and one at 41.8S 17.2E on 15 Nov'02.

**Atlantic Yellow-nosed Albatross *Thalassarche chlororhynchos*.** SC recorded three at 42.8S 51.3W on 26 March. PF saw two off South Africa at 37S 22.3E on 2 Nov'02, one at 42S 30.5E on 5 Nov'02 and one at 47.3S 17.6E on 14 Nov'02 and one at 39S 16.5E on 16 Nov'02. Seen by SGC around Tristan da Cunha with 18 in 3h at 37.1S 12.1W on 12 April, 60-70 at 37.1S 12.3W while at anchor at Tristan on 14 April, three at 33.7S 11.1W on 15 April.

**Indian Yellow-nosed Albatross *Thalassarche carteri*.** Recorded by PF between Capetown and Marion Island including 50 at 37S 22.3E on 2 Nov'02. Further south he saw one at 48.3S 35E on 8 Nov'02, one at 47.3S 17.7E and one at 46.7S 17.5E on 14 Nov'02.

**Grey-headed Albatross *Thalassarche chrysostoma*.** SC saw one at 51.6S 48.6W east of the Falklands on 17 April and one off the Nordenskjöld Glacier, S.Georgia on 21 April and one

## **Sea Swallow 60 (2011)**

at 53.9S 37.8W on 23 April. SGC had several records in the same area and in Drake Passage, including one at 52.4S 51.5E, Scotia Sea on 26 Nov'10, one at 54.9S 36W on 1 Nov'10, two at 58.9S 47.6W on 3 Dec'10, five at 57.5S 64.1W on 11 Dec'10, four at 62S 59.5W S.Shetlands on 21 Dec'10, three at 58S 63.6W on 27 Jan, four adults plus four imm at 61.2S 62.3W on 20 Feb, 28 in 4h in 57.6S 64W on 27 March, three at 59S 49.5W on 1 April, two at 57.2S 43.5W on 2 April, three at 55S 36.1W approaching S.Georgia on 3 April, four at 52.6S 33.6W on 6 April and the last two at 49.7S 27.4W on 7 April. Recorded by PF in the South Africa-Marion Island area with 10 at 42S 30.5E, 10 at 43S 31E and 10 at 44S 34E all on the 5 Nov'02, four at 44.8S 35E on 6 Nov'02, 15 at 48.1S 35.7E and three at 48.3S 35E on 8 Nov'02, one at 51S 18.8E and two at 47.3S 17.6E on 14 Nov'02.

**Sooty Albatross *Phoebastria fusca*.** SGC observed one at 53.5S 42.7W, Scotia Sea on 27 Nov'10, one at 56.9S 41.6W on 2 Dec'10 and on the way to Gough Island, two at 52.6S 33.6W on 6 April, five adults and an imm at 49.7S 27.4W on 7 April, four at 44.5S 17.8W on 9 April, eight in 3h at 42.1S 13.1W on 10 April, two at 37.1S 12.1W on passage to Tristan da Cunha on 12 April, two at 37.1S 12.3W whilst at anchor at Tristan. Seen by PF off South Africa with three at 42S 30.5E and five at 44S 34E on 5 Nov'02, three at 44.8S 35E, Marion Island on 6 Nov'02, five at 48.3S 35E on 8 Nov'02 and one at 43.5S 17.8E on 15 Nov'02.

**Light-mantled Sooty Albatross *Phoebastria palpebrata*.** There were regular sightings in Drake passage by SGC including five at 57.4S 65.5W on 9 Dec'10, six at 57.5S 64.1W on 11 Dec'10, seven at 60.5S 63.7W on 27 Dec'10, one at 54.9S 64.3W off Staten Island on 28 Jan, four at 61.2S 62.3W on 20 Feb, two at 57.7S 64W on 27 March, five at 59S 49.5W Scotia Sea on 1 April, two at 55S 36.1W approaching S.Georgia on 3 April, one at 52.6S 33.6W on 6 April, one at 47.7S 23.4W on 8 April and the last one at 44.5S 17.8W on 9th April. SC saw one at 51.7S 49.7W east of the Falklands on 17 April, another single at 51.6S 42.7W the next day and one at 54.1S 36.5W near S.Georgia on 19 April. In the Marion Island area and further south PF saw six at 44.8S 35E on 6 Nov'02, two at 46.9S 37.9E, on 7 Nov'02, eight at 48.1S 35.7E on 8 Nov'02, 10 at 50.5E 30E on 9 Nov'02, two at 54S 23E on 12 Nov'02, two at 48.1S 17.9E, 20 at 47.3S 17.6E and four at 46.7S 17.5E all on 14 Nov'02.

### **FULMARS *Fulmarinae***

**Southern Giant Petrel *Macronectes giganteus*.** Several records by MA at S.Georgia from 20-25 Jan with a maximum count of 20 at Stromness, 54.1S 36.7W on 21st and four further west at 53.2S 43.5W on 26th. In Falklands waters SC saw three at 52.2S 58.3W on 29 March, seven at 51.5S 59.3W, Falkland Sound, 19 at 51.2S 58.7W off C.Dolphin both on 30 March, 18 between C.Pembroke and East Cove on 1 April, 11 at 51.6S 61.5 E off Weddell Is on 10 April, 27 at 52S 57.4W off C.Pembroke on 16 April. On a return passage Falklands to South Georgia he recorded five at 51.7S 51.6W and four at 51.8S 49.7W on 17 April, one at 51.6S 42.7W on 18 April, nine at 54.1S 36.5W off S.Georgia on 19 April, six at 54.3S 35.9W on 21 April, five at 54.7S 35.7W on 22 April, three at 53.9S 37.8W on 23 April, three at 53.2S 43.1W on 24 April, and three at 52.1S 51.5W on 25 April. SGC recorded 17 in 2h at 51.7S 57.4W, Scotia Sea on 25 Nov'10, and 17 the next day at 52.4S 51.5E, six at 54.9S 36W near S.Georgia on 1 Dec'10, three at 57.9S 63.7W on 20 Dec'10, 140 in 3h at 54.9S 64.3W near Staten Island on 28 Jan, 450 at 55S 65.7W off S coast of Tierra del Fuego on 7 Feb, four at



## *Sea Swallow 60 (2011)*

61.6S 60W on 28 March, 21 in 2h at 55S 36.1W approaching S.Georgia on 3 April and the last two at 37.1S 12.1W near Tristan da Cunha on 12 April. PF recorded a few between Marion Island and the ice edge with five at 48.1S 35.7E on 8 Nov'02, one at 48.3S 35E on the same day, two at 54.8S 23.8E on 11 Nov'02, one at 51S 19.5E on 13 Nov'02, four at 51S 18.8E both on 13 Nov'02.

**Northern Giant Petrel *Macronectes halli*.** MA recorded a few around South Georgia with three at 53.9S 38.2W and one at 53.9S 36.4W on 19 Jan, also two at 54.3S 36.5W on 23 Jan. SC observed two at 50.3S 56.5W in the South Atlantic on 27 March, three at 52S 57.4W in the Falklands on 16 April, one at 53.2S 43.1W on 24 April. SGC observed one at 52.4S 51.5W, Scotia Sea on 26 Nov'10, three at 54.9S 36W leaving S.Georgia on 1 Dec'10 and eight the following day at 57S 41.8W, one at 57.5S 64.1W on 11 Dec'10, one at 57.9S 63.7W on 20 Dec'10, two at 57.8S 63.4W on 30 Dec'10, two at 59S 64W on 30 Jan, 37 in 2h at 55S 36.1W approaching S.Georgia on 3 April.

**Northern Fulmar *Fulmarus glacialis*.** Many observations from UK waters and the western approaches by MC and AT.

**Southern Fulmar *Fulmarus glacialisoides*.** SC observed one on 31 March at 51.6S 57.1W off C.Pembroke, Falklands, 14 the next day when on passage to East Cove 51.9S 57.9W, 157 in 2.2h at 52.4S 59.2W on 9 April, 62 at 51.6S 61.5W off Weddell I. on 10 April, 16 at 51.9S 57.2W off C.Pembroke on 13 April, and 47 nearby at 52S 57.4W on 16 April, four at 54.3S 35.9W S.Georgia on 21 April, five at 54.7S 35.7W on 22 April and one at 53.9S 37.8W on 23 April. SGC saw two at 61.5S 60.2W on 12 Dec'10, two at 59.7S 63.8W on 17 Dec'10, c.30 at 62S 59.5W S.Shetlands on 21 Dec'10, one at 62.9S 63.6W on 10 Feb, seven at 61.6S 60W on 28 March, 105 in 3h at 62S 57.1W, Bransfield Strait on 31 March, 14 at 59S 49.5W on 1 April, seven at 57.2S 43.5W on 2 April. PF saw one off South Africa at 35.9S 20.8E on 2 Nov'02, 20 near the ice edge at 53S 26.8E on 10 Nov'02, 10 at 51S 19.5E and 30 at 51S 18.7E on 13 Nov'02, four at 48S 17.9E and two at 47.3S 17.7E on 14 Nov'02.

**Antarctic Petrel *Thalassoica antarctica*.** PF saw 20 near the ice edge at 53.9S 25.6E on 10 Nov'02 and 100 at 54.8S 23.8E on 11 Nov. SGC observed two at 61.6S 60.1W north of the S.Shetlands on 12 Dec'10 and one at 60.7S 61W on 28 March.

**Cape Petrel *Daption capense*.** Many records from Falklands, Drake Passage and S.Georgia area by SGC. Larger concentrations included c.30 at 58.9S 47.7W Scotia Sea on 3 Dec, 500+ at 60.5S 53.2W approaching Elephant Island on 4 Dec'10, 350 at 61.5S 60.2W Drake Passage on 12 Dec'10, 22 at 59.7S 63.8E on 17 Dec'10, c.500 at 62S 59.5W at an iceberg on approach to the South Shetlands on 21 Dec'10, 28 at 60.5S 63.7W on 27 Dec'10, 30 at 61.6S 60W on 28 March, 300+ at 62S 57.1W, Bransfield Strait on 31 March, 18 at 59S 49.5W Scotia Sea on 1 April and the last at 49.7S 27.4W on 7 April. SC recorded seven at 52.4S 60.2W, Falklands on 9 April, eight at 51.6S 61.5W near Weddell I. on 10 April, four at 51.9S 57.2W off C.Pembroke on 13 April, three nearby at 52S 57.4W on 16 April, five at 51.7S 49.7E on 17 April, two at 51.6S 48.6W on 17 April, three at 51.6S 42.7W on 18 April, four at 54.1S 36.5W S.Georgia on 19 April, 56 at 54.7S 35.7W on 22 April and two at 52.1S 51.5W on 25 April. PF saw 80 off C.Agulhas S.Africa at 35.9S 20.8E and 50 at 37S 22.3E

## *Sea Swallow 60 (2011)*

on 2 Nov'02, 50 at 38.8S 25.2E on 3 Nov'02, two at 48.3S 35E on 8 Nov'02, 10 at 53.9S 25.6E on 10 Nov'02, 30 at 51S 18.7E on 13 Nov'02, 10 at 46.7S 17.5E on 14 Nov'02 and two at 39S 16.5E on 16 Nov'02.

**Snow Petrel *Pagodroma nivea*.** Seen by PF near the Antarctic ice edge with 50 at 53.9S 25.6E on 10 Nov'02, 200 at 54.8S 23.8E on 11 Nov'02. SGC saw 10 at 54.9S 36W when departing from S.Georgia on 1 Dec'10, 87 in 3h at 62S 57.1W Bransfield Strait on 31 March.

**Kerguelen Petrel *Lugensa brevirostris*.** Seen by PF around Marion Island and south to the Antarctic ice edge with two at 46S 37E and four at 46.9S 37.9E on 6 Nov'02, two at 48.1S 35.7E and one at 48.8S 34E on 8 Nov'02, eight at 50.5S 30E on 9 Nov'02, 50 at 54S 23E on 12 Nov'02, 13 at 51S 19.5E and eight at 51S 18.6E on 13 Nov'02 and one at 48S 17.9E on 14 Nov'02. SGC saw three at 57.7S 64W in Drake Passage on 27 March, four the next day at 61.6S 60W, six at 59S 49.5W, Scotia Sea on 1 April, eight in 3h at 57.2S 43.5W on 2 April and on passage from S.Georgia to Gough Island, two at 52.6S 33.6W on 6 April, five at 49.7S 27.4W on 7 April, one at 47.7S 23.4W on 8 April, one at 44.5S 17.8W on 9 April and three at 42.1S 13.1W on 10 April.

**Broad-billed Prion *Pachyptila vittata*.** Seen by SGC in the Gough Island-Tristan area with four at 44.5S 17.8W on 9 April, 300+ at 42.1S 13.1W on 10 April, one at 40.3S 12.9W on 11 April, two at 37.1S 12.1W the next day and one at 37.4S 12.5W, Nightingale Island on 13 April.

**Salvin's Prion *Pachyptila salvini*.** PF reported the species off South Africa and Marion Island and larger flocks included 100 at 43S 31E at 5 Nov'02, 50 at 44S 34S 5 Nov'02, 50 at 44.9S 35S and 100 at 46.9S 37.9E on 6 Nov'11, 500 at 46.9S 37.9E Marion Island on 7 Nov'02.

**Antarctic Prion *Pachyptila desolata*.** At South Georgia MA saw five at 54.3S 36.5W on 23 Jan and eight at 54.9S 35.7W on 25 Jan. SC recorded one at 44.1S 49.9W on 26 March, two at 51.6S 42.7W on 18 April. SGC saw 30-40,000 at 54.9S 36W when leaving S.Georgia on 1 Dec'10, and 50 in 4h the next day at 56.9S 41.8W, 60+ at 59.7S 63.8W on 17 Dec'10, 16 at 57.7S 64W on 27 March, 3,000+ in 4h at 59S 49.5W Scotia Sea on 1 April and c.250 the following day at 57.2S 43.5W.

**Slender-billed Prion *Pachyptila belcheri*.** SGC saw nine at 51.7S 57.4W, Scotia Sea on 25 Nov'10, 11 at 57.4S 65.5W in Drake Passage on 9 Dec'10, and 12 at 57.5S 64.1W on 11 Dec'10.

**Fairy Prion *Pachyptila turtur*.** SC identified 56 in 1h at 51.7S 49.7W east of the Falklands on 17 April, three at 53.2S 43.1W on 23 April and 12 at 52.1S 51.5W on 25 April. SGC saw one at 54.9S 36W near S.Georgia on 1 Dec'10, one at 57.2S 43.5W Scotia Sea on April, 14 at 55S 36.1W approaching S.Georgia on 2 April.

**Blue Petrel *Halobaena caerulea*.** Several were seen by MA around South Georgia from 19-24 Jan with eight at Grytviken anchorage on 20th. SC saw one there at 54.7S 35.7W on 22 April and during the return passage to the Falklands four at 53.9S 37.8W on 23 April and one at 53.2S 43.1W on 24 April. SGC provided several records including 36 in 4h at 54.9S 36.1W departing S.Georgia on 1 Dec'10, eight the next day at 56.9S 41.8W on 2 Dec'10, 14 at 57.4S 65.5W Drake Passage on 9 Dec'10, 18 at 57.5S 64.1W on 11 Dec'10, 44 in 3h at



Fairy Prion *Pachyptila turtur*. South Atlantic Ocean, 17 Apr 11.  
Photo: Steve Copsey.

59.7S 63.8W on 17 Dec'10, nine at 57.8S 63.4W on 30 Dec'10, 23 in 4h at 59S 49.5W Scotia Sea on 1 April, 36 in 3h at 57.2S 43.5W on 2 April, 600+ in 2h at 55S 36.1W approaching S.Georgia on 3 April and the last one at 49.7S 27.4W on 7 April. Seen around Marion Island and south to the Antarctic ice edge by PF with two at 42S 30.5E and two at 43S 31E on 5 Nov'02, 50 at 44.8S 35E and 50 at 46.9S 37.9E near Marion Island on 6 Nov'02, 100 at 48.1S 35.7E and 55 at 48.3S 35E on 8 Nov'02, 20 at 52.3S 27.8E and 30 at 53S 26.8E on 10 Nov'02, 10 at 54S 23E on 12 Nov'02, 50 at 51S 18.8E on 13 Nov'02, 10 at 48.1S 17.9E, 10 at 47.3S 17.6E and 50 at 46.7S 17.5E all on 14 Nov'02.

**Great-winged Petrel** *Pterodroma macroptera*. In the South Atlantic SGC recorded five at 33.7S 11.1W on 15 April and one at 29.3S 9.7W on 16 April. PF observed one near South Africa at 37S 22.3E on 2 Nov'02, six at 39.8S 26.5E the next day, three at 43.4S 17.8E and three at 41.8S 17.2E on 15 Nov'02, 10 at 39S 16.5E on 16 Nov'02 and 250 south of Cape Town at 36S 17.5E on 17 Nov'02.

**White-headed Petrel** *Pterodroma lessonii*. Several observations by PF between Cape Town, Marion Island and further south including the first one at 39.8S 26.5E on 3 Nov'02, 10 at 42S 30.5E and 10 at 43S 31E on 5 Nov'02, four at 50.5S 30E on 9 Nov'02, two at 46.7S 17.5E on 14 Nov'02 and five at 41.8S 17.2E on 15 Nov'02.

## *Sea Swallow 60 (2011)*

**Atlantic Petrel *Pterodroma incerta*.** Heading south in the Atlantic during March, SC saw the first three at 28.3S 42.6W on the 23rd, three at 30.9S 44.1W and two at 33S 45.2W on the 24th, one at 36.5S 47.2W and five at 38S 48.1W, a count of 13 in 1h at 39.8S 49.3W all on the 25th, one at East Cove, Falklands 51.4S 58W on 1 April, two at 51.7S 49.7W on 17 April, one at 51.6S 42.6W on 18 April and four at 52.1S 51.5E on 25 April. SGC recorded the species between S.Georgia and Gough Island in April with one at 52.6S 33.6W on the 6th, one at 49.7S 27.4W on the 7th, six at 47.7S 23.4W on the 8th, four at 44.5S 17.8W on the 9th, 56 in 3h at 42.1S 13.1W on the 10th and further north he saw three at 33.7S 11.1W on 15 April. PF saw three south of Cape Town at 39S 16.5E on 16 Nov'02.



Atlantic Petrel *Pterodroma incerta*. Atlantic Ocean, 25 Mar 2011.

Photo: Steve Copsey.

**Mottled petrel *Pterodroma inexpectata*.** SGC had close views of one in Drake Passage at 59.9S 63.7W on 17 Dec'10.

**Fea's Petrel *Pterodroma feae*.** SC recorded five and photographed one at 17.2N 24.8W near the Cape Verde Is on 15 March. SGC recorded 24 around Fogo and Brava, Cape Verde Is. on 2 May and one at 16.9N 23.5W on 4 May A detailed article with many superb photographs reviewing the difficult ID of Fea's, Desertas and Zino's Petrels has been published.(Shirihai et.al.2010)

**Zino's Petrel *Pterodroma madeira*.** Datalogging of the movements of Zino's Petrel by remote sensing has revealed an extensive range in the North and South Atlantic, from the west coast of Ireland to 40W to the upwelling area off NW Africa during the breeding season on Madeira from April to September and more wide ranging at other times in the North and South Atlantic including waters off NE Brazil and south to St.Helena (Zino et.al 2011).

**Soft-plumaged Petrel *Pterodroma mollis*.** In the South Atlantic approaching the Falklands SC saw his first at 39.8S 49.3W on 25 March, three at 42.8S 51.3 and three at 44.1S 49.3W the next

## ✧ *Sea Swallow 60* (2011)

day, five in 3h at 50.3S 56.5W on 27 March. Later he saw eight between Cape Pembroke and East Cove, Falklands, 51.6S 57.1W on 31 March and on passage to and from South Georgia three at 51.8S 49.7W on 17 April, seven in 5h at 51.6S 42.7E and two at 52.1S 51.6W on 25 April. In the same area and in Drake Passage SGC had multiple sightings including 19 in 4h at 52.4S 51.5W, Scotia Sea on 26 Nov'10, six at 59S 64W on 30 Jan, one at 58.9S 62.1W on 16 Feb and five at 61.2S 62.3W on 20 Feb, 56 in 4h at 59S 49.5W, Scotia Sea on 1 April and 48 in 3h the next day at 57.2S 43.5W. On passage from S.Georgia to Gough Island the numbers increased and SGC saw 70+ at 52.6S 33.6W on 6 April, 88 in 4h at 49.7S 27.4W on the 7th, 21 at 47.6S 23.4W on the 8th, 16 at 44.5S 17.8W on the 9th and 140 in 3h at 42.1S 13.1W on 10 April, 16 at 37.1S 12.1W on 12 April. Recorded by PF between South Africa and Marion Island where it breeds, with 50 at 38.8S 25.2E and 100 at 39.8S 26.5E on 3 Nov'02, 50 at 42S 30.5E and 20 at 43S 31E on 5 Nov, 100 at 46.9S 37.9E, Marion Island on 6 Nov'02, 10 at 46.7S 17.5E on 14 Nov'02, 250 at 41.8S 17.2E on 15 Nov'02 and 100 at 39S 16.5E on 16 Nov'02.



Fea's Petrel *Pterodroma feae*. Cap Verde, 15 Mar 2011. Photo: Steve Copsey.

**Collared Petrel** *Pterodroma brevipes*. A new taxon of dark small-sized Collared Petrel *Pterodroma brevipes magnificens* from Vanua Lava, Vanuatu has been described and flight photographs published (Bretagnolle & Shirihai 2010).

**Bulwer's Petrel** *Bulweria bulwerii*. In the tropical Atlantic SC saw one at 10.3N 26.3W on 16 March and another at 8.2S 32.4W on 19 March. MC observed two at 37.5N 28.4W south of the Azores on 16 May'10. SGC recorded one at 16.3S 5.9W near St.Helena on 19 April, three at 0.8S 17.2W on 27 April, one at 3.4N 18.9W on 28 April, one at 7.8N 20.6W on 29 April, one at 11.8BN 22.2W on 30 April, 14 in 3h at 24.8N 17.5W off Gomera, Canary Is on 8 May and 17 in 3h at 31N 16.1W north of I.Salvagem on 9 May.

## **SHEARWATERS *Procellariinae***

**Grey Petrel *Procellaria cinerea*.** A few records from SC in the Falklands-South Georgia area during April including three at 51.7S 49.7W and five at 51.6S 48.8W on 17th, one at 51.6S 42.7W on 18th, and one at 52.1S 51.5W on 25th. A few were seen by PR in the South Africa-Marion Island area with one at 38.8S 25.2E on 3 Nov'02, one at 47.3S 17.7E and two at 46.7S 17.5E on 14 Nov'02, three at 43.4S 17.8E and 10 at 41.8S 17.2E on 15 Nov'02.

**White-chinned Petrel *Procellaria aequinoctialis*.** MA saw small numbers around South Georgia from 19 to 25 Jan with a maximum of seven at 53.9S 38.2W on 19th and one at 53.1S 43.5W on the return to the Falklands on 26 Jan. Heading south to the Falklands SC saw the first five at 50.3S 56.5W on 27 March, several in the Falklands area from 29 March to 16 April and on a return passage to S.Georgia two at 51.7S 49.7W on 17 April, five at 51.6S 42.6W on 18 April, one at 53.9S 37.8W on 23 April, two at 53.2S 43.1W the next day and one at 52.1S 51.6W on the 25 April. In the same area and in Drake Passage SGC had many records including 18 at 52.4S 51.5W, Scotia Sea on 26 Nov'10, 68 in 4h at 54.9S 36W leaving S.Georgia on 1 Dec'10, eight in Drake Passage at 57.4S 65.5W on 9 Dec'10, nine at 62S 59.5W approaching the S.Shetlands on 21 Dec'10, 18 in 2h at 59S 64W on 30 Jan, 36 in 3h at 55S 65.7W off SE coast of Tierra del Fuego, 22 at 57.7S 64W on 27 March, 70 in 2h at 55S 36.1W approaching S.Georgia on 3 April, c.60 at 52.6S 33.6W on 6 April and the last three at 47.7S 23.4W on 8 April. PF recorded 50 off C.Agulhas S.Africa at 35.9S 20.8E, 20 at 37S 21.5E and 30 at 37S 22.3E on 2 Nov'02, 30 at 38.8S 25.2E and 20 at 39.7S 26.5E on 3 Nov'02, 20 at 42S 30.5E and 10 at 43S 31E on 5 Nov'02, 10 at 44.9S 35E and 100 at 46.9S 37.9E, Marion Island on 6 Nov'02, 2 at 48.1S 35.7E and two at 48.8S 34E on 8 Nov'02, six at 50.5S 30E on 9 Nov'02 and 50 at 36S 17.5E south from Cape Town on 17 Nov'02.

**Spectacled Petrel *Procellaria conspicillata*.** Seen and photographed by SC with three at 28.3S 42.6W on the 23 March, three at 30.9S 44.1W and three at 33S 45.2W on 24 March, one at 36.5S 47.2W on 25 March and the last at 44.1S 49.8W on 26 March. SGC saw one at 52.6S 33.6W on 6 April, three at 44.5S 17.8W on 9 April, 80 at 42.1S 13.1W on 10 April, 54 near Tristan at 37.1S 12.1W on 12 April, 12 in 3h at 33.7S 11.1W on 15 April, nine in 3h at 29.3S 9.7W the next day, and four at 24.9S 8.4 W on 17 April.

**Westland Petrel *Procellaria westlandica*.** SGC reported one in Drake Passage at 58.1S 63.5W on 27 March.

**Scopoli's Shearwater *Calonectris d.diomedea*** A single was seen by SC at 33.8N 13.2E south from Malta on 27 Feb, three at 35.8N 12.6E on 4 March and two at 36N 12.3E the same day. JB saw one south of Sicily at 36.8N 12.9E on 15 March'10.

**Cory's Shearwater *Calonectris d.borealis*.** SC provided records from the North and South Atlantic with four at 32.9N 16W and 57 at 32.6N 16.9W approaching Madeira on 10 March, 41 nearby at 32.6N 16.9W on 12 March, four at 2.8N 27.8W on 17 March, one at 23.5S 40W on 22 March, one at 30.9S 44.1W on 24 March and 140 at 42.8S 51.3W on 26 March. MC saw one at 39.1N 21.8W on 14 May'10 and the next day when approaching the Azores counted 110 in 1h at 37.8N 24.2W. He subsequently saw one at 37.5N 28.4W, two at 37.4N 29.5W two at 37.4N 29.5W and five at 37.2N 31.8W all on 16 May'10, 24 at 36.9N 37W

## Sea Swallow 60 (2011)

over school of dolphins on 17 May'10. SGC saw one at 10.5S 11.5W on 23 April, 16 in 4h at 4.1S 15.9W on 26 April, 17 in 3h at 0.8S 17.2W on 27 April and five plus a feeding flock of 40 at 7.8N 20.6W on 29 April, 400+ around Fogo and Brava Cape Verde Is on 2 May, 60 near Raso C.V. on 3 May, one at 20.1N 17.7 off Mauretania on 6 May, 48 at 23.9N 17W on 7 May, 350 at 24.8N 17.5W off Gomera, Canary Is. on 8 May, three at 31N 16.1W on 9 May.

**Cape Verde Shearwater *Calonectris edwardsii*.** SC saw one off the Cape Verde Is at 16.9N 25.3W on 15 March. SGC recorded six around Fogo and Brava Cape Verde Is. on 2 May, 19 around Raso on 3 May, four at 16.9N 23.5W on 4 May.

**Great Shearwater *Puffinus gravis*.** Observed by MA in the Falklands-South Georgia area during January with one at 52.8S 47.5W on 18th, two at 53.9S 36.4W on 19th, one at 54.3S 36.9W on 20th, one at 54.2S 36.7W and one at 54.3S 36.5W on 22nd, one at 54.3S 36.5W on 24th, two at 53.1S 43.5W on 26th and the last at 53.5S 51.1W on 27th. Several records from SC who when heading south in the Atlantic saw the first two at 38S 48.1W on 25 March; other observations include 16 at 39.8S 49.3W also on 25 March, two at 50.3S 56.5W on 27 March, 27 off Cape Dolphin, Falklands at 51.6S 58.7W on 30 March, 180 in 1.5h near Weddell I. at 51.6S 61.5E on 10 April, one at 53.2S 43.1W on 24 April and absent around South Georgia when he visited from 19-23 April. SGC had several records between S.Georgia and Gough Island during April with nine at 52.6S 33.6W on the 6th, six at 49.7S 27.4W on the 7th, one at 47.4S 23.4W on the 8th, 28 at 44.5S 17.8W on the 9th and c.60 at 42.1S 13.1W on the 10th. He then saw 85 at 37.1S 12.1W off Tristan on 12 April, 4-500 at 37.4S 12.5W at Nightingale Island on 13 April. MC recorded 20 at 36.1N 48.8W and 30 at 35.9N 51.4W in mid North Atlantic on 26 May'10. Further west he saw one at 36.8N 74.2W on 15 June'10, one at 37.1N 74.6W on 18 June'10, two at 39.9N 71.9W on 23 June'10 and one at 36N 75.1W on 4 July'10. Off South Africa PF saw 20 at 35.9S 20.4E, 10 at 36.5S 21.5E and 100 at 37S 22.3E all on 2 Nov'02 and one at 39.7S 26.5E on 3 Nov'02. An unprecedented influx into South Australian waters during April 2011 with 15 seen at 38.2S 141.1E and 35 at 38.5S 140.6E off Port MacDonnell on the 3rd. There are only seven previous records, all of single birds in Australian seas during last 22 years. (Colin Rogers pers.com.)

**Sooty Shearwater *Puffinus griseus*.** SGC saw four at 51.7S 57.4W, Scotia Sea on 25 Nov'10, one at 57.9S 63.7W in Drake Passage on 20 Dec'10, 45 at 56S 65.6W on 20 Jan, an impressive 23,700 in 3h at 54.9S 64.3W off Staten Island on 28 Jan, 14 at 57S 65.3E on 26 Feb. On passage from S.Georgia to Gough Island SGC saw one at 49.7S 27.4E on 7 April, four at 44.5S 17.8W on 9 April, three at 42.1S 13.1W on 10 April. He also saw 18 at 20.1N 17.6W off Mauretania on 6 May, MA saw one at 53.9S 38.2W off S.Georgia on 19 Jan and another east of the Falklands at 52.3S 53.9W on 27 Jan. In the Falklands SC observed c.400 at 51.8S 57.3E near C.Pembroke on 27 March, c.1000 at 51.9S 58.5W on 29 March and one at 52.1S 51.5W on 25 April. MC recorded one off the US east coast at 34.4N 71W on 20 May'10. Off South Africa PF recorded 10 at 37.9S 20.8E on 2 Nov'02, one at 43.4S 17.8E and five at 41.8S 17.2E on 15 Nov'02 and one at 39S 16.5E on 16 Nov'02.





Sooty Shearwater *Puffinus griseus*. Lively Sound 29 Mar 2011. Photo: Steve Copsey.

**Manx Shearwater** *Puffinus puffinus*. SC observed five at 32.6N 16.9W near Madeira on 10 March and 11 in the same position on 12 March. PF recorded one off South Africa at 37S 22.3E on 2 Nov'02. MC saw 30 at 50.6N 6.1W off SW England on 7 April'10 and one at 37N 37W in mid Atlantic on 17 May'10.

**Yelkouan Shearwater** *Puffinus yelkouan*. SC observed one 5 nm north from Gozo, Malta on 26 Feb. JB saw five at 42.6N 37.6E in the southeast Black Sea on 7 March'10, one further west at 42N 31.7E on 10 March'10 and 'thousands' at 41.2N 29.1E in the Bosphorus on 11 March'10. Interestingly, almost exactly a year later on 10 March SGC counted 3,238 in groups on one leg of a Bosphorus ferry crossing, all heading north to the Black Sea.

**Macronesian Shearwater** *Puffinus baroli*. A single was seen by SC at 16.9N 25.3W near the Cape Verde Is on 15 March.

**Subantarctic Little Shearwater** *Puffinus elegans*. SGC recorded two in the S. Atlantic at 44.5S 17.8W on 9 April, six at 42.1S 13.1W the next day and three at 37.1S 12.1W near Tristan on 12 April.

**Audubon's Shearwater** *Puffinus lherminieri*. SGC observed the Cape Verde sub-species *P.l.boydi* with 26 around Fogo and Brava on 2 May, 26 near Raso on 3 May and three at 16.9N 23.5W on 4 May.

#### **DIVING-PETRELS *Pelecanoidinae***

**South Georgian Diving-petrel** *Pelecanoides georgicus*. SC identified three NW from S.Georgia at 51.6S 42.7W on 18 April.

**Common Diving Petrel** *Pelecanoides urinatrix*. MA reported four from South Georgia at 54.9S 35.7W and one at 55.6S 35.9W on 25 Jan. SC saw two near C. Dolphin, Falklands, 51.2S 58.7W on 30 March. 11 at 54.7S 35.7W South Georgia on 22 April, three at 53.9S 37.8W on 23 April and two at 53.2S 43.1W on 24 April. SGC saw one in Drake Passage at 56S 65.6W on 20 Jan, 67 in the Scotia Sea at 57.2S 43.5W on 2 April.

#### **STORM-PETRELS** *Hydrobatidae*

**Wilson's Storm-petrel** *Oceanites oceanicus*. Observations from SGC included 13 at 51.7S 57.4W east of the Falklands on 25 Nov'10, 41 in 4h at 54.9S 36W departing S. Georgia on 1 Dec'10, 16 at 61.5S 60.2W Drake Passage on 12 Dec'10, and 52 in 3h at 59.7S 63.8W the next day, 18 at 56.4S 65.6W on 18 Dec'10, 14 at 60.1S 64.4W on 5 Jan. 36 in 4h at 61.2S 60.9W on 21 Jan, three at 62S 57.1W, Bransfield Strait on 31 March, one at 37S 12.3W at Tristan da Cunha on 14 April, one at 7.8N 20.6W in the tropical Atlantic on 29 April and a remarkable 1,000+ in 4h at 20.1N 17.7W on 6 May in the upwelling area off Mauretania. One was seen by TJ off West Africa at 4.4N 15.6W on 16 April. MA recorded small numbers between the Falklands and South Georgia during January including three at 53S 44.7W on 18th, three at 54.3S 36.5W on 20th, six at 54.3S 36.5W on 24th and two at 55.6S 35.9W on 25th. SC observed seven in 1h in the South Atlantic at 42.8S 51.3W on 26 March and between the Falklands and S. Georgia one at 51.6S 48.6W on 17 April, five at 51.6S 42.6W the following day and two at 53.2S 43.1W on 24 April. One was seen by MC at 27.5N 80.5W near the Florida coast on 8 June'10 then further north along the US coast 30 at 36.8N 74.2W on 15 June'10, 15 at 37.1N 74.6W on 18 June'10 and 60 at 39.9N 71.9W on 23 June'10. Off South Africa PF observed two at 37S 22.3E on 2 Nov'02, four at 38.8S 25.2E and six at 39.7S 26.5E on 3 Nov'02.



Wilson's Storm-petrel *Oceanites oceanicus*. Eastern Pacific, 25 May 2011.  
Photo: Neil Cheshire.

**Grey-backed Storm-petrel *Garrodia nereis*.** MA observed three at 54.6S 35.9W, South Georgia on 25 Jan and one at 54.5S 51.1W east of the Falklands on 27 Jan. SGC observed one at 52.4S 51.5W on 26 Nov'10 and one at 52.6S 33.6W on 6 April and two at 47.2S 22.5W on 8 April. PF had records near Marion Island on 6 Nov'02 with one at 44.8S 35E, two at 46S 37E and three at 46.9S 37.9E.

**White-faced Storm-petrel *Pelagodroma marina*.** One was seen by SC in the South Atlantic at 42.8S 51.3W on 26 March. SGC saw one near Fogo, Cape Verde Is. on 2 May, four at 23.9N 17W on 7 May, one at 24.8N 17.5W off Gomera, Canary Is. on 8 May and two at 31N 16.1W off I. Salvagem on 9 May.

**White-bellied Storm-petrel *Fregetta grallaria*.** One was seen by SC in the South Atlantic at 44.1S 49.9W on 26 March. SGC had records from S. Georgia to Gough-Tristan and towards St Helena with five at 49.7S 27.4W on 7 April, one at 47.7S 23.4W the next day, two at 42.1S 13.1W on 10 April, four at 37.1S 12.1W near Tristan on 12 April, one at 24.9S 8.4W on 17 April, one at 10.5S 11.5W on 23 April.

**Black-bellied Storm-petrel *Fregetta tropica*.** Between the Falklands and South Georgia SC observed nine at 51.6S 42.7W on 18 April, seven at 54.1S 36.5W on 19 April, two at 53.9S 37.8W on 23 April and two the next day at 53.2S 43.1W. SGC saw at 54.9S 36W departing S. Georgia on 1 Dec'10, three at 57S 41.8E on 2 Dec'10, one at 58.9S 47.7E on 3 Dec'10, four at 60.5S 53.2W approaching Elephant Island on 4 Dec'10, nine at 61.5S 60.2W on 12 Dec'10, six at 62S 59.5W near the S. Shetlands on 21 Dec'10, 170 in 4h at 61.2S 60.9W Drake Passage on 21 Jan 32 at 62.9S 63.6W on 10 Feb, three at 61.2S 62.3E on 20 Feb, seven at 57.7S 64W on 27 March, nine at 62S 57.1W, Bransfield Strait on 31 March, 28 in 3h at 57.2S 43.4W on 2 April, 54 at 55S 36.1E approaching S. Georgia on 3 April, six at 52.6S 33.6W on 6 April and the last three at 49.6S 27.4W on 7 April. PF recorded the species between South Africa, Marion Is and the Antarctic ice edge during Nov'02 with three at 37S 22.3E on the 2nd, eight at 38.8S 25.2E and six at 39.7S 26.5E on the 3rd, four at 42S 30.5E and two at 44S 34E on the 5th, 10 at 44.8S 35E and 10 at 46S 37E on the 6th, 20 at 46.9S 37.9E, Marion Island on the 7th, two at 54S 23E on the 12th, two at 51S 18.7E on 13th, one at 47.3S 17.7E and on at 46.7S 17.5E on 14th, three at 43S 17.7E and 10 at 41.8S 17.2E on the 15th also 10 at 39S 16.5E on the 16th.

**European Storm-petrel *Hydrobates pelagicus*.** SGC recorded one at 0.8S 17.2W on 27 April and three at 20.1N 17.7W off Mauretania on 6 May.

**Madeiran Storm-petrel. *Oceanodroma castro*.** SGC saw 11 at 16.3S 5.9W near St. Helena on 19 April, six at St. Helena on 21 April, one at 4.1S 15.9W on 26 April, 13 in 2h at 16.9N 23.5W north of the Cape Verdes on 4 May, seven at 17.8N 20.3W on 5 May and one at 31N 16.1W north of I. Salvagem on 9 May.

**Leach's Storm-petrel *Oceanodroma leucorhoa*.** In the tropical Atlantic in March SC counted 18 in 1h at 10.3N 26.3W on 16th, six at 2.8N 27.8W on 17th, four at 2.1S 29.6E on the 18th and the last three at 8.2S 32.4W on the 19th. SGC saw eight at 4.1S 15.9W on 26 April, 65 in 3h at 0.8S 17.2W on 27 April, 116 in 3h at 3.4N 18.9W on 28 April, eight at 7.8N 20.6W on 29 April, three at 11.8N 22.3W on 30 April, two at 17.8N 20.3W on 5 May.

## *Sea Swallow 60 (2011)*

MC recorded five in 1h at 35.9N 49.9W mid North Atlantic on 26 May'10 and 12 in 3h at 39.7N 46.8W on 7 Aug'10. PF recorded six at 36S 17.5E off South Africa near the southern limit of their range on 17 Nov'02.

### TROPICBIRDS *Phaethontidae*

**Red-billed Tropic-bird *Phaethon aethereus*.** SC recorded eight off the Cape Verde Is. at 16.9N 25.3W on 15 March. SGC saw one at 16.3S 5.9W near St.Helena on 19 April, three at St.Helena on 21 April and at the Cape Verde Islands, seven around Fogo and Brava on 2 May, six at Praia on 3 May, 12 in 3h around Santiago and Raso on 3 May and two at Raso on 4 May.

**White-tailed Tropicbird *Phaethon lepturus*.** SGC saw one in the tropical Atlantic at 10.5S 11.5W on 23 April, nine around Ascension Is. on 24 April, one at 14.9N 23.7W, Cape Verde Is. on 3 May.

### GANNETS and BOOBIES *Sulidae*

**Northern Gannet *Morus bassanus*.** SC counted 150 in 1h at 44.6N 9.1W off NW Spain on 20 Feb, two at 32.2N 20.1E off Benghazi on 2 March, one in the central Mediterranean at 36N 12.3E on 4 March and one in the NE Atlantic at 34.3N 11.5W on 9 March. MC recorded 20 at 47.9N 8.6W in the Bay of Biscay on 12 May'10 and two nearby at 47.9N 9.1W the same day. SGC saw 70-80 at 20.1N 17.7W off Mauretania on 6 May and seven the next day at 23.9N 17W.

**Masked Booby *Sula dactylatra*.** In the Caribbean TJ saw one at 20.1N 81.6W on 1 April, three at 18.9N 77W the next day, then three in the tropical Atlantic at 15.3N 59.5W on 6th April and another at 14.2N 55.2W the following day. Heading south in the eastern Atlantic during March SC saw three at 2.1S 29.6W and 13 in 1h at 3.2S 30.1W on the 18th, one at 8.2S 32.4W on the 19th, one at 18S 37.3W on the 21st and the last at 23.5S 40W on 22nd. SGC saw two adults and an imm at 16.8S 5.9W near St.Helena on 19 April, seven at St.Helena on 21 March, 2,000+ at Ascension Island on 24 March.

**Brown Booby *Sula leucogaster*.** SC observed one in the Atlantic at 2.1S 29.6W on 18 March. TJ saw one in the Lesser Antilles at 16N 63.7W on 5 April. SGC saw two at St.Helena on 21 April, c.60 at Ascension I. on 24 April, one at Praia, Cape Verde Is. on 3 May, one at 16.6N 24.6W near Raso C.V on 4 May.

**Red-footed Booby *Sula sula*.** SGC saw c.20 around Ascension I. on 24 April, one at 4.1S 15.9W on 26 April.

### CORMORANTS and SHAGS *Phalacrocoracidae*

**Great Cormorant *Phalacrocorax carbo*.** SGC saw 12 in the Bosphorus on 9 March and four there the next day.



Great Cormorant *Phalacrocorax carbo*, California. Photo: Neil Cheshire.

**Imperial Shag** *Leucocarbo atriceps*. Six seen at 51.7S 57.4 W when departing from the Falklands on 25 Nov'10, 43 in 2h at 54.9S 64.3W near Staten Island on 28 Jan. 25 at 55S 65.7 W off SE coast of Tierra del Fuego on 7 Feb (SGC). SC had several records from the Falklands including c.300 in Berkley Sound 51.7S 59.9W on 27 March, c.200 at 51.9S 58.5W on 29 March, c.160 in Falkland Sound 51.5S 59.2W on 30 March.

**South Georgian Shag** *Leucocarbo georgianus*. SC observed two at 56.1S 36.5W on 19 April, 30 at Gritviken later the same day, 18 at 54.3S 35.9W on 18 April and c.130 at 54.7S 35.7W on 22 April.

**European Shag** *Stictocarbo aristotelis*. SGC counted 10 during a Bosphorus cruise on 10 March. MC had one on board at 58.6N 6.8W NW from Lewis on 19 April'10.

**Rock Shag** *Stictocarbo magellanicus*. SC saw c.100 in Port William Sound, Falklands 51.6S 57.8W on 27 March.

#### FRIGATEBIRDS *Fregatidae*

**Ascension Frigatebird** *Fregata aquila*. SGC saw 1,000+ during a boat trip at Ascension I on 24 May.

**Magnificent Frigatebird** *Fregata magnificens*. TJ saw one in the eastern Caribbean at 16.6N 68.2W on 4 April.

**PHALAROPES** *Phalaropodidae*

**Grey (Red) Phalarope** *Phalaropus fulicarius*. SGC saw five at 20.1N 17.7W off Mauretania on 6 May and seven the following day at 23.8N 17W.



Red-necked Phalarope *Phalaropus lobatus*, juvenile, off Morro Bay, California. 4 August 2010. Photo: Neil Cheshire.

**SHEATHBILLS** *Chionidae*

**Yellow-billed Sheathbill** *Chionis alba*. SC observed two at 51.9S 57.2W near C.Pembroke, Falklands on 13 April and one at Gritviken, S.Georgia on 19 April. SGC saw two at 62S 57.1W Bransfield Strait on 31 March.

**Black-faced Sheathbill** *Chionis minor*. PF recorded 100 At 46.9S 37.9E ,Marion Island on 7 Nov'02.

**SKUAS and JAEGERs** *Stercorariini*

**Great Skua** *Catharacta skua*. SC recorded one at 36N 12.3E south of Sicily on 4 March. SGC observed six at 20.1N 17.6W off Mauretania on 6 May.

**Southern Skua** *Catharacta antarctica*. MA saw five at Stromness anchorage, South Georgia on 21 Jan and four east of the Falklands at 52.3S 53.9W on 27 Jan. In the Falklands area, SC saw six at 51.7S 59.9W Berkley Sound on 27 March, nine at 51.5S 59.2W, Falkland Sound on 30 March, three at 51.9S 58W on 1 April, and three at Gritviken S.Georgia on 19 April and one at 52.1S 51.5W on 25 April. PF saw 10 at 37S 22.3E off South Africa on 2 Nov'02, 10 at 46.9S 37.9E, Marion island on 7 Nov'02. SGC saw one at 54.9S 36W on 1 Dec'10, one at 62S 59.5W near S.Shetlands on 21 Dec'10, one very pugnacious bird that forced a Black-

## Sea Swallow 60 (2011)

browed Albatross on to the sea then chased a Giant Petrel and Wandering Albatross at 60.5S 63.7W on 27 Dec'10, two at 61.2S 60.9W on 21 Jan, one at 57.7S 64W on 27 March, one at 59S 49.5W on 1 April, one at 57.2S 43.5W on 2 April, one at 44.5S 17.7W on 9 April and one at 42.1S 13.6W the next day, 50-60 at 40.3S 12.9W, Gough Island on 11 April.

**Chilean Skua *Catharacta chilensis*.** MA observed four off South Georgia at 53.9S 38.2W on 19 Jan, and eight at Grytviken anchorage on 24 Jan, SGC saw one at 57.5S 64.2W, Drake Passage on 11 Dec'10, one at 55S 65.7W off Tierra del Fuego on 7 Feb.

**McCormick's Skua *Catharacta mccormicki*.** Three were seen by SGC at 62S 57.1W, Bransfield Strait on 31 March, and a migrating bird at 10.5S 11.5W in the tropical Atlantic on 23 April.

**Pomarine Skua *Stercorarius pomarinus*.** Three seen and photographed by SC at 32.2N 20.1E off Benghazi on 2 March. TJ recorded one in the mid tropical Atlantic at 12.1N 46.5W on 9 April. In South African waters PF saw one at 35.9S 20.8W on 2 Nov'02. SGC saw two at St Helena on 21 April and c.70 adults and imms at 20.1N 17.7W off Mauretania on 6 May.

**Arctic Skua *Stercorarius parasiticus*.** One at 32.2N 20.1E off Benghazi on 2 March (SC). Seen by PF in South African waters with four at 36.5S 21.5E on 2 Nov'02 and one at 39S 16.5E on 16 Nov'02. SGC saw one at 4.1S 15.9W in the tropical Atlantic on 26 April.

**Long-tailed Skua *Stercorarius longicaudus*.** Returning to Cape Town, PF recorded one at 43S 17.7E and another at 41.8S 17.2E on 15 Nov'02 with one at 39S 16.5E the next day. On passage to Gough Island, SGC saw one at 47.7S 23.4W on 8 April, three at 4.1S 15.9W in the tropical Atlantic on 26 April, three adults and one imm at 11.8N 22.3W on 30 April, c.60 in 4h at 20.1N 17.7W off Mauretania on 6 May.

### GULLS *Larinae*

**Audouin's Gull *Larus audouinii*.** Four at 32.2N 20.1E off Benghazi on 2 March (SC).



Audouin's Gull *Larus audouinii*. Benghazi, 2 Mar 2011. Photo: Steve Copsey.



## *Sea Swallow 60 (2011)*

**Common Gull *Larus canus*.** SGC recorded eight during a Bosphorus cruise on 10 March.

**Lesser Black-backed Gull *Larus fuscus*.** SC recorded 220 in Augusta Hr. Sicily on 28 Feb and 60 at 32.2N 20.1E off Benghazi on 2 March.

**Yellow-legged Gull *Larus michahellis*** SC counted 36 in Valetta Harbour on 26 Feb and two offshore at 36N 12.3E on 4 March. JB recorded five at 41.2N 29.1E in the Bosphorus on 11 March'10 and c.100 off Athens at 37.8N 23.5E on 12 March'10. SGC observed c.2,000 in the Bosphorus on 9 March and 1-2,000 plus two aboard the next day in the same area.

**Caspian Gull *Larus cachinnans*.** SGC observed one in the Bosphorus on 9 March.

**Great Black-backed Gull *Larus marinus*.** SGC saw one in the Bosphorus on 10 March. MC recorded two at 43.2N 70.1W off the coast of the NE USA on 20 June'10.

**Kelp Gull *Larus dominicanus*.** MA saw two at 52.8S 47.5W on 18 Jan, about half way between the Falklands and South Georgia and small numbers around South Georgia from 19th to 25th then three at 52.3S 53.9W east of the Falklands on 27 Jan. SC recorded 40 at 51.6S 57.8W Pt. William Sound, Falklands on 27 March and seven at Gritviken on 19 April. SGC saw one well south in Bransfield Strait at 62S 57.1W on 31 March.

**Dolphin Gull *Larus scoresbii*.** SC saw two at 51.6S 61.5W near Weddell Is, Falklands on 10 April.

**Franklin's Gull *Larus pipixcan*.** SGC recorded a vagrant in pink flushed breeding plumage close to the ship at 37.1S 12.3W whilst at anchor at Tristan da Cunha on 14 April.

**Mediterranean Gull *Larus melanocephalus*.** SC counted 69 in Valetta Harbour on 26 Feb and 100 at 32.2N 20.1E off Benghazi on 2 March. JB recorded 15 at 41.2N 29.1E in the Bosphorus on 11 March'10 and 20 at 37.8N 23.5E off Athens on 12 March'10. SGC saw three in the Bosphorus on 9 March.

**Black-headed Gull *Larus ridibundus*.** SC saw four in Valetta Harbour on 26 Feb. 'Hundreds' were seen by JB at 37.8N 23.5E off Athens on 12 March'10. SGC saw c.20,000 in the Bosphorus on 9 March and 10-15,000 the next day in the same area.

**Brown-hooded Gull *Larus maculipennis*.** Two at 51.6S 57.8W Pt. William Sound, Falklands on 27 March, and c.300 at Bertha's Beach on 4 April. (SC).

**Little Gull *Larus minutus*.** SGC saw nine during a Bosphorus cruise on 10 March

**Sabine's Gull *Larus sabini*.** SGC recorded a remarkable 600+ in 4h flying steadily north at 20.4N 17.7W off Mauretania on 6 May, with almost all breeding plumaged adults.

**Black-legged Kittiwake *Rissa tridactyla*** An interesting record from JB who observed one in the southeastern Black Sea at 41.9N 36.5E on 9 March'10. They are regular winter visitors to

## *Sea Swallow 60 (2011)*

the northern Aegean coast in small numbers with records as late as April and May (Handrinos and Akriotis 1997). There are also returns of British ringed birds from the Ukraine which includes the northern coast of the Black Sea (Malling Olsen and Larson 2003). SC saw seven at 44.6N 9.1W off NW Spain on 20 Feb.

### **TERNs *Sterninae***

**Black Tern *Chidonias niger*.** SGC observed one at 20.1N 17.7W off Mauretania on 6 May.

**South American Tern *Sterna hirundinacea*.** Seven just east of the Falklands at 51.7S 57.4W on 25 Nov'10 (SGC). In the Falklands SC saw 11 at 51.6S 57.8W, Pt. William Sound on 27 March, c.200 at 51.9S 57.9W on passage from C. Pembroke to East Cove on 1 April.

**Arctic Tern *Sterna paradisaea*.** SGC saw three at 16.3S 5.9W near St. Helena on 19 April, one at 13.7S 8.1W on 22 April, 14 in small groups at 10.5S 11.5W on 23 April, 46 in 3h at 0.8S 17.2W on 27 April, 56 in 3h at 3.4N 18.9W the next day, four at 7.8N 20.6W on 29 April, one at 11.8N 22.3W, c.500 in 7.4h around Fogo and Brava, Cape Verde Is. on 2 May, c.700 in 3h around Ras C.V. on 30 April, three at 17.8N 20.3W on 5 May, c.300 at 20.1N 17.7W off Mauretania on 6 May, and two the next day at 23.9N 17W. PF reported one in juvenile plumage at 37S 22.3E off South Africa on 2 Nov'02, four adults at 39.7S 26.5 on 3 Nov'02, six at 54.9S 23.8E on 11 Nov'02 and two at 39S 16.5E on 16 Nov'02.

**Antarctic Tern *Sterna vittata*.** Seen by SC at South Georgia with six at 54.1S 36.5W on 19 April, and six at Gritviken later the same day. SGC recorded 10 at 52.4S 51.5W, Scotia Sea on 26 Nov'10, two at 54.9S 36W, S. Georgia on 1 Dec'10, one in Drake Passage at 60.5S 63.7W on 27 Dec'10, 22 in 3h at 62S 57.1W Bransfield Strait on 31 March, three at 57.2S 43.4W on 2 April, 16 at 40.3S 12.9W Gough Island on 11 April. A late record from South African waters by PF who saw eight at 35.9S 20.8E on 2 Nov'02.

**Kerguelen Tern *Sterna virgata*.** PF reported eight at 46.9S 37.9E, Marion Island on 7 Nov'02.

**Sooty Tern *Sterna fuscata*.** In the tropical Atlantic SC saw 20 at 2.1S 29.6W on 18 March. SGC observed one at 13.7S 8.1W on 22 April, two at 10.5S 11.5W on 23 April, eight at Ascension Is. on 24 April, 65 in flock at 4.1S 15.9W on 26 April, 110 in 3h at 0.8S 17.2W on 27 April.

**Royal Tern *Sterna maxima*.** TJ saw four on the Warri River Nigeria on 6 May and 30 at Takoradi Roads, Ghana on 14 May. SGC saw 16 at 20.1N 17.7W off Mauretania on 6 May.

**Lesser Crested Tern *Sterna bengalensis*.** SGC saw two at 20.1N 17.7W off Mauretania on 6 May.

**Sandwich Tern *Sterna sandvicensis*** SC observed two in Strait of Gibraltar at 35.9N 5.6W on 8 March. JB observed one at 37.8N 23.5E off Athens on 12 Mar'10. TJ saw five at Takoradi Roads, Ghana on 14 May.

## *Sea Swallow 60 (2011)*

**Brown Noddy** *Anous stolidus*. SC recorded two in the Atlantic at 2.1S 29.6W on 18 March and one at 12.8S 34.6W on 20 March. SGC saw 274 in 3h at 16.3S 5.9W near St.Helena on 19 April, c.250 at St.Helena on 21 April, one at 4.1S 15.9W on 26 April.

**Black Noddy** *Anous minutus*. Recorded by SGC who saw 21 at 16.3S 5.9W near St.Helena on 19 April, c.400 at St.Helena on 21 April, c.3,000 at Ascension I. on 24 April.

**White Tern** *Gygis alba*. SGC recorded 115 at 16.3S 5.9W approaching St.Helena on 19 April, c.80 at St.Helena on 21 April, 7-800 at Ascension Island on 24 April.

### ALCIDS Alcidae

**Common Guillemot** *Uria aalge*. SC observed one at 44.6N 9.1W off NW Spain on 20 Feb. MC saw 40 at 58.1N 5.8W in the North Minch on 12 April'10.

**Black Guillemot** *Cephus grylle*. MC recorded 20 at 58.1 N 5.8W in the North Minch on 12 April'10.

### References

Handrinos,G. and Akriotis,T. 1997. *The Birds of Greece*. C.Helm

Malling Olsen,K. and Larsson,H. 2003. *Gulls of North America,Europe and Asia*. C.Helm

Bretagnolle,V.and Shirihai,H. 2010. *A new taxon of Collared Petrel Pterodroma brevipes from the Banks Islands,Vanuatu*. Bull BOC. 130:286-301.

Shirihai,H.,Bretagnolle,V.Zino,F. 2010. *Identification of Fca's, Desertas and Zino's Petrels at sea*. Birding World 23(6):239-275.

Zino,F,Phillips,R.and Biscoito,M. 2011. *Zino's Petrel movements at sea-a preliminary analysis of datalogger results*. Birding World 24(5):216-219.

Neil Cheshire  
7 Hodge Avenue,  
Encounter Bay,  
South Australia 5211,  
Australia.

LANDBIRDS FROM SHIPS AT SEA 2004-2010

Compiled by Lt Chris Patrick RN

After an absence of several years in which few records were received I am pleased to be able to present this report. All records of land birds at sea are warmly welcomed.

Records are presented as submitted, without adjudication, and do not include those that have previously been published in *Sea Swallow* articles.

SECTION A - EAST ATLANTIC (EAST OF 30°W), BAY OF BISCAY and IRISH SEA

2004

During HMS St Albans transit from Portsmouth to the Mediterranean, CPO Mark A J Cutts (MAJC) and WO2 Anthony D Tindale (ADT) recorded a Reed Warbler *Acrocephalus scirpaceus* at 49.4°N 06.2°W on 7 Sep. The following day at 0800, 49.6°N 09.9°W, they had singles of Dunlin *Calidris alpina*, Ringed Plover *Charadrius hiaticula*, Sedge Warbler *Acrocephalus schoenobaenus*, Spotted Flycatcher *Muscicapa striata*, Garden Warbler *Sylvia borin* and Meadow Pipit *Anthus pratensis*, along with 2 Northern Wheatears *Oenanthe oenanthe* and 6 White Wagtails *Motacilla alba* (4 adults, 2 immatures). Later that day, at 1600, they saw a Grey Heron *Ardea cinerea*.



Northern Wheatear *Oenanthe oenanthe*. Photo: Mark Cutts.

## 2005

Stephen Chapman (Sch) sailing from Portsmouth to Bilbao, Spain aboard the square-rigged sailing vessel *Tenacious* saw a Barn Swallow *Hirundo rustica* 7nm west of Ushant on 1 Oct. The next day 1 or 2 possible Pipits sp. flew past the vessel in mid Biscay. On the morning of 3 Oct an Owl sp. was reported by the crew. In the afternoon Sch saw a White Wagtail. At 0950 on 4 Oct at 43.7°N 03.3°W a Robin *Erithacus rubecula* arrived aboard and was seen to fly ashore, along with a Warbler sp., as the vessel neared Bilbao. Around the same time a Short-eared Owl *Asio flammeus* was flushed from the foremast as the crew climbed aloft. This was probably the owl from the previous day that had spent its time roosting, unobserved, in the rigging.



Barn Swallow *Hirundo rustica*. Photo: Mark Cutts.

## 2006

In the southern Bay of Biscay on 28 Aug, David Curtis (DC), on one of his many Brittany Ferries crossings from Portsmouth and Plymouth to Santander, observed 6 Ruddy Turnstone *Arenaria interpres* at 44.3°N 04.0°W and, about 30nm north of there, 9 Common Scoter *Melanitta nigra* in flocks of 6 and 3.

## 2007

Whilst approaching Santander on 30 Apr, DC saw 2 Barn Swallows. A House Martin *Delichon urbicum* was observed by DC 20nm west of Ushant on 23 May. The next day he saw a Barn Swallow and a Common Swift *Apus apus* in the southern Bay of Biscay. Here, on 30 May, he recorded 3 Common Scoter and a Turtle Dove *Streptopelia turtur*. On 13 Aug DC reported 18 Godwit sp. *Limosa* sp. at sea near Santander with a further 4 seen 75nm north at 44.8°N 04.1°W. A Grey Heron was recorded by DC 55nm north of Santander on 15 Oct.

Simon Cook (SCo) aboard MV *Fram* saw a male Peregrine Falcon *Falco peregrinus* plucking a small bird in its talons as it flew 3nm south of Cape Clear Island on the morning of 26 Sep. Later that day 2 Pied Wagtails *Motacilla alba yarelli* flew past and a Meadow Pipit was heard at 50.9N 11.5W, 56nm from the nearest land. That evening a Merlin *Falco columbarius* was seen chasing a Meadow Pipit at 50.8N 13.3W, 125nm southwest of Mizen Head. "The Merlin chased the Pipit into an upper deck window so I picked the dazed Pipit up and put it in a box in my cabin for recovery and later release. The Merlin stayed on the ship but just before dinner at 19.30 I saw it fly off strongly low over the water towards the southwest until it disappeared from sight. I went to my cabin for the Pipit, which had recovered, and released it in a group of stacked chairs on the sun deck. From there I went down to dinner where my attention was called almost immediately to something on the outside balcony. Going over, I saw the Merlin eating a .....Meadow Pipit!"

The Merlin remained aboard until 28 Nov when it ate a Northern Wheatear, apart from its feathers but including its legs and feet, at 49.5N 29.5W, over 700nm west of Mizen Head.

## **2008**

In the southern Bay of Biscay on 05 May, DC saw a Collared Dove *Streptopelia decaocto* c.50nm northwest of Santander and, a further 60nm north, 3 Barn Swallows. On 02 Jun he found another Collared Dove c.80nm north of Santander. A Common Swift was seen by DC c.15nm north of the Spanish coast on 15 Jul and a Pipit sp. was in the same area on 22 Sep with a Robin about 30nm off the coast on the same day.

Whilst 116nm northwest of Butt of Lewis on 25 Sep, SCo aboard MV *Fram* witnessed 5 Merlins repeatedly landing and taking off, with up to 4 at a time perched on wires. The following day he saw a Meadow Pipit, 1nm from the entrance to Stornoway harbour.

## **2009**

On the approaches to Santander on 26 Mar DC recorded 3 early Barn Swallows.

On 15 Dec SCo, aboard MS *Expedition*, noted a Little Egret *Egretta garzetta* whilst in Las Palmas Harbour, Gran Canaria.

## **2010**

MAJC aboard HMS *Liverpool* observed 2 Chiffchaffs *Phylloscopus collybita* and a Starling *Sturnus vulgaris* in the Irish Sea at 53.7°N 05.3°W on 8 Apr. The following morning he saw a Blackbird *Turdus merula* at 57.4°N 09.0°W, 55nm west of Barra, Outer Hebrides. In The Minches, at 58.0°N 05.8°W, on 12 Apr MAJC found a Greylag Goose *Anser anser* resting on the sea. On 12 May he recorded a Northern Wheatear at 48.6°N 07.8°W, 120nm west of Ushant, in the morning and in the evening a Barn Swallow at 46.5°N 11.0°W, 140nm northwest of Cape Finisterre Spain.

## **SECTION B - ENGLISH CHANNEL, NORTH SEA, NORWEGIAN SEA and BALTIC**

## **2005**

On 17 Mar HMS *St Albans* was just southwest of Sark, Channel Islands, when MAJC and ADT watched a Peregrine Falcon flying towards Herm.



Chiffchaff *Phylloscopus collybita*. Photo: Mark Cutts.

#### **2006**

On 22 Aug at c.25 southwest of Plymouth, DC recorded a Willow Warbler *Phylloscopus trochilus*. On 08 Sep, while approaching Plymouth, he saw 6 Ruddy Turnstone.

#### **2007**

DC recorded a Barn Swallow about 20nm northwest of Ushant on 23 May and a Collared Dove about 35nm north of Ushant on 06 May. A Wood Pigeon *Columba palumbus* was seen c.60nm southwest of Plymouth by DC on 31 Jul and on 16 Oct he saw 3 Siskins *Spinus spinus* at 49.7°N 04.5°W, c.50nm southwest of Plymouth.

#### **2008**

DC was again southwest of Plymouth, by c.35nm, on 04 May when he reported a single Barn Swallow. In a similar position that autumn he saw 190 Barn Swallows on 23 Sep.

#### **2009**

Approaching Portsmouth on 25 Mar, DC saw 2 Meadow Pipits.

MAJC, aboard HMS *Liverpool* operating just south of Plymouth, recorded a Collared Dove and a Blackcap *Sylvia atricapilla* on 10 Sep. In the same area on 23 Sep, MAJC watched a Little Egret fly past heading southwest.

#### **2010**

Three Barn Swallows flew north past HMS *Dauntless* (ADT) whilst she was operating south of Portland on 14 Apr. Barn Swallows continued to trickle past in ones and twos (19 in total), along with 5 House Martins, reported from 21 to 23 Apr. On 24 Apr, ADT recorded a female Common Kestrel *Falco tinnunculus* flying east, c.20nm south of Beachy Head. The same day a Feral Pigeon *Columba livia* was seen in the North Sea at 51.7N 02.5E. The following



## *Sea Swallow 60* (2011)

morning, c.30nm east of Flamborough Head, ADT recorded 2 Willow Warblers, a female Common Redstart *Phoenicurus phoenicurus* and a male Blackcap.

A Blackcap was found dead on the deck by MAJC, just south of Plymouth, on 04 May. On 05 May, just southeast of the Isle of Wight, ADT watched a Hobby *Falco subbuteo* flying northeast.

At 50.0°N 04.2°W, MAJC recorded a late migrating Chiffchaff on 19 Nov.

### SECTION C - WEST ATLANTIC (WEST OF 30°W)

#### 2007

Seven miles south of Newfoundland on 02 Oct, SCo watched a female or immature Peregrine Falcon fly low over MV *Fram*, at 46.6N 56.1W, heading for shore.

Approaching Bar Harbour in the Gulf of Maine on 05 Oct birds flying past the ship included a Peregrine Falcon, a female Pine Grosbeak *Pinicola enucleator*, 3 Pine Siskins *Spinus pinus* and at least 10 Dark-eyed Juncos *Junco hyemalis*, 3 of which landed aboard to join 6 or more White-throated Sparrows *Zonotrichia albicollis*, a male Golden-crowned Kinglet *Regulus satrapa*, Red-breasted Nuthatch *Sitta canadensis*, Mourning Dove *Zenaidura macroura* and Winter Wren *Troglodytes hiemalis*. In Massachusetts Bay the following day, while on a whale watching excursion, SCo saw Song Sparrow *Melospiza melodia* and Dark-eyed Junco 13nm from land while watching 2 whales and a pod of dolphins.

Two Savannah Sparrows *Passerculus sandwichensis*, Yellow-rumped Warbler *Dendroica coronata* and a White-throated Sparrow were aboard and a Northern Flicker *Colaptes auratus* flew past the ship as it approached Newport, Rhode Island, 41.5N 71.3W, on 08 Oct. That night as the ship headed for New York 2 Savannah Sparrows, 3 White-throated Sparrows, a male Brown-headed Cowbird *Molothrus ater* and a Palm Warbler *Dendroica palmarum* hitched a ride from 40.7N 72.2W. The following day the Cowbird and a Sparrow were seen leaving the ship close to Manhattan Bridge. On the morning of 10 Oct at 37.5N 74.1W 2 Mourning Doves were aboard and a Palm Warbler arrived exhausted but perked up after a couple of hours and resumed its migration. That afternoon an immature Peregrine Falcon visited for several hours, 52nm southeast of Cape Lookout.

On 11 Oct SCo sighted a Wilsons Snipe *Gallinago delicata* flying past the ship at 37.0N 74.2W as well as a Mourning Dove and 4 small passerines while a Palm Warbler alighted for a few minutes.

#### 2008

SCo found a Northern Flicker perching cables and railings around MV *Fram*, 540nm east of St John's, Newfoundland, at 48.5°N 39.4°W on 04 Oct, on 15 Oct, while passing 30nm east of Cape Hatteras, 36.3°N 74.5°W, he saw House Wren *Troglodytes aedon*, Black-throated Blue Warbler *Dendroica caerulescens* and Yellow-rumped Warbler on the ship. The following day at 32.6N 79.3W, 32nm southeast of Charleston, 2 Peregrine Falcons landed aboard briefly and a Grey Catbird *Dumetella carolinensis* was taken into care, having flown into a glass screen. It was later released ashore. Another Grey Catbird was around the ship on 17 Oct at 31.1°N 79.9°W, 75nm east of St Simon's Island.

## 2010

On 02 Jul MAJC found a Brown-headed Cowbird 45nm east of North Carolina, at 36.2°N 74.3°W. On 06 Aug he recorded a single Cliff Swallow *Petrochelidon pyrrhonota* at 38.7N 52.6W and the following day 5 more at 39.7°N 46.8°W, 490nm southeast of Newfoundland.

## SECTION D - GULF OF MEXICO and CARIBBEAN

### 2007

During 14 Oct as MV *Fram* was heading south along the Florida coast, SCo reported 4 small passerines and in the evening, whilst 25nm southeast of Key Largo, a possible Scarlet Tanager *Piranga olivacea* flew past.

SCo describes what happened that evening and in to 15 Oct. "A major fall of migrants on the ship with other birds flying past us so I spent the whole of the night patrolling the decks – very exciting! Course was parallel to the lower Keys, 262, ca 15 nm offshore, wind NE 4, 8/8 cloud. I was on the bridge after dinner on the 14<sup>th</sup>, saw Egrets fly past and ran straight out onto deck. "By 02.00 many birds were on the decks with hundreds flying around the ship. 90% of the birds on board were of just 2 species, equally split between Common Yellowthroats *Geothlypis trichas* and Palm Warblers. Initially the majority of birds were Yellowthroats then the Palms started to arrive. "By 04.00 the sky started clearing and aerial birds left; by 06.00 many on the ship had left too and the remainder were driven off the ship as we docked in Key West. Several Warblers had got inside the ship and had to be caught and released.

"Species recorded on the ship - Common Yellowthroat 2-300, Palm Warbler 2-300, Northern Parula *Parula americana* c.10, Mourning Dove 1, American Redstart *Setophaga ruticilla* 5-10 males c.20 female/immatures, Black-throated Blue Warbler 3 males 1 female, Black-and-white Warbler *Mniotilta varia* 1 male, Ovenbird *Seiurus aurocapilla* 1, Red-eyed Vireo *Vireo olivaceus* 1, Blackpoll Warbler *Dendroica striata* 1, Magnolia Warbler *Dendroica magnolia* 3, Prairie Warbler *Dendroica discolor* 6 males, Tennessee Warbler *Oreothlypis peregrina* 1, Yellow-throated Warbler *Dendroica dominica* 1.

"Species seen in flight - Warbler sp. hundreds, Nightjar/Nighthawk sp. 3, White-crowned Pigeon *Patagioenas leucocephala* 1 flew past very close at eye level, Great White Egret *Ardea alba* 1 + 3, Great Blue Heron *Ardea herodias* 3 + 2, Cattle Egret *Bubulcus ibis* 4 + 6 + 3 + 8 + 3, Egret sp. 17 + 2 + 3 + 9 + 11, possible Greater Yellowlegs *Tringa melanoleuca* 3."

On the evening of 15 Oct at 23.5N 82.2W, 18nm northeast of Havana, Cuba, 2 Peregrine Falcons roosted on the main mast and a Great Blue Heron chose to perch on the bow.

In the Yucatan Channel the following morning a Peregrine Falcon was seen unsuccessfully chasing a Warbler sp. and then a Cattle Egret that was in company with a Snowy Egret *Egretta thula*. Three Great White Egrets also flew past at 0740, at 22.2N 85.2W.

A Northern Parula alighted briefly at 0526 on 20 Oct when the MV *Fram* was 35nm off the northeast coast of Honduras, at 15.3N 83.9W.

## Sea Swallow 60 (2011)

Overnight 21/22 Oct as the ship headed south towards Puerto Limon, Costa Rica, the northeasterly wind force 5 eased to northwest 2 with heavy rain and lightning and "hundreds" of birds, reported by the crew, started arriving from 0230. SCo caught the tail end from 0445 at 10.3N 82.8W, 22nm northeast of the coast where he recorded 1 Green Heron *Butorides virescens*, 60-70 Red-eyed Vireos, 1 male and 8 female/immature Summer Tanagers *Piranga rubra*, 3 Eastern Kingbird *Tyrannus tyrannus*, about 40 Bay-breasted Warblers *Dendroica castanea*, about 20 Prothonotary Warblers *Protonotaria citrea* and singles of Acadian Flycatcher *Empidonax virescens*, Dickcissel *Spiza americana* (first winter female), Blackburnian Warbler *Dendroica fusca* (male), Eastern Wood Pewee *Contopus virens* and Tennessee Warbler.

### 2008

In the Straits of Florida, around 26.3°N 79.7°W, on 19 Oct, SCo witnessed a small fall with 8 Palm Warblers and singles of Grey Catbird, Yellow-rumped Warbler and Common Yellowthroat resting on the ship and a female or immature American Redstart found dead. That evening many more birds arrived as the ship passed the lower Florida Keys, around 24.7°N 80.3°W, with about 50 Palm Warblers, 4 male and 3 female Black-throated Blue Warblers, at least 10 Northern Parulas, 70 to 80 Common Yellowthroats, about 15 American Redstarts including 3 or 4 males and a female Prairie Warbler. Only a few of these birds lingered beyond dawn on 20 Oct.

A Green Heron spent an hour on the ship on 21 Oct, 25nm northwest of Cuba, at 22.1°N 85.3°W. On 22 Oct at 19.4°N 86.5°W, nearest land southern Mexico 50nm, SCo watched a Peregrine Falcon eating a Yellow-billed Cuckoo *Coccyzus americanus* in flight and perched on the ship. Also aboard were a second Peregrine Falcon and single Palm Warbler, Grey Catbird (found dead), Magnolia Warbler, Hooded Warbler *Wilsonia citrina* (1<sup>st</sup> year female) and Red-eyed Vireo.

A remarkable early morning fall of migrants the next day in the Gulf of Honduras, around 16.0°N 88.5°W, brought an incredible range of species but not in any numbers. Two each of Mangrove Swallow *Tachycineta albilinea* and Red-eyed Vireo were the only multiple records. There were however singles of American Redstart (female/immature), Common Yellowthroat, Blackpoll Warbler, Ovenbird, Black-throated Green Warbler *Dendroica virens*, Black and White Warbler, Cerulean Warbler *Dendroica cerulea* (immature female), Magnolia Warbler, Yellow-throated Vireo *Vireo flavifrons*, Yellow-breasted Chat *Icteria virens*, Wood Thrush *Hylocichla ustulata*, Grey Catbird, Baltimore Oriole *Icterus galbula* (male), Eastern Wood Pewee and Indigo Bunting *Passerina cyanea* (female).

Another fall with a good variety of species occurred the next day (24 Oct) when approaching Roatan Island, Honduras, around 16.2°N 87.0°W. This included 3 Magnolia Warblers, 3 Common Yellowthroats, 2 male Hooded Warblers, 2 Chestnut-sided Warblers *Dendroica pensylvanica*, 2 Red-eyed Vireos, single Eastern Wood Pewee, Black-throated Green Warbler, Yellow-throated Vireo, Indigo Bunting and Mangrove Cuckoo *Coccyzus minor* (told from Yellow-billed Cuckoo by underpart colour and bill pattern).

On the morning of 25 Oct SCo watched a Merlin on the ship eating a small passerine at 16.2°N 83.1°W. That afternoon a Common Yellowthroat was recorded aboard.

## Sea Swallow 60 (2011)

Heading south for Costa Rica on 26 Oct, around 10.5°N 82.8°W. SCo observed 3 Yellow-billed Cuckoos (1 dead), 2 Prothonotary Warblers, and singles of Red-eyed Vireo, Yellow Warbler *Dendroica petechia*, Common Yellowthroat, Chestnut-sided Warbler and Parula Warbler. That evening a Peregrine Falcon roosted on MV Fram and departed at daybreak. On 27 Oct, 2 Prothonotary Warblers were present overnight while the ship was at anchor off Panama, at 09.5°N 78.9°W.

### SECTION E – MEDITERRANEAN

#### 2004

Aboard HMS St Albans, MAJC and ADT recorded 2 Little Egrets on the evening of 15 Sep at 35.8°N 04.6°W. On 19 Sep, south of Sardinia at 37.7°N 08.5°W, they had a Yellow Wagtail *Motacilla flava* and 2 Collared Doves. 2 Robins were aboard on 25 Sep at 37.8°N 02.6°W and the following day another Robin was present, along with a Yellow Wagtail and a Stonechat *Saxicola torquatus*, at the same position. Later in the day as they headed west, a Turtle Dove and 2 Barn Swallows were noted.

#### 2010

In the Black Sea on 6 Mar Julian Bell (JB) watched a Yellowhammer *Emberiza citrinella*, a White Wagtail and 6 Skylarks *Alauda arvensis* (4 dead) aboard SV Geosund at 42.7°N 37.6°E. On 8 Mar a total of over 150 Skylarks were recorded along with a male Black Redstart *Phoenicurus ochruros*, 2 male and a female Stonechats, Common Kestrel and a Grey Heron that roosted aboard. That night numerous Fieldfares *Turdus pilaris*, Song Thrushes *Turdus philomelos*, Redwings *Turdus iliacus* and Blackbirds were heard calling overhead. At 0530 the next morning at 41.7°N 37.2°E JB saw 6 Black Redstarts, 4 White Wagtails, 9 Skylarks (3 dead), a Common Kestrel, a Robin, 2 Cetti's Warblers *Cettia cetti* (a sedentary species in the west of its range but a seasonal migrant in the east) and a Corn Bunting *Emberiza calandra* and heard Chaffinch *Fringilla coelebs*, Fieldfare and Blackbird. Later in the day there was another White Wagtail aboard and 3 Rooks *Corvus frugilegus* flying south.

In the Marmora Straits at 41.1°N 29.1°E on 11 Mar 2 Common Shelduck *Tadorna tadorna* flew past the ship.

In the Mediterranean on 15 Mar JB found both a Subalpine Warbler *Sylvia cantillans* and a Black Redstart dead on the deck.

### SECTION F - RED SEA and GULF OF ADEN

No records.

### SECTION G - INDIAN OCEAN and ARABIAN SEA

No records

### SECTION H - PERSIAN GULF and GULF OF OMAN

No records

## *Sea Swallow 60* (2011)

### SECTION I - PACIFIC, CHINA SEA, YELLOW SEA, CORAL SEA and PHILIPPINE SEA

2008

An pre-dawn walk around the deck of MV *Fram* by SCo on 30 Oct produced a Cliff Swallow at 05.5°N 79.9°W, about 120nm south Panama. A Ruddy Turnstone landed briefly on the bow rail while the ship was 16nm off the coast of Peru at 09.2°S 78.9°W on 03 Nov.

2010

Capt T Johanssen of MV *Albert Oldendorff* reported a Hoopoe *Upupa epops* at Lian-yungang Roads, China, 34.8°N 119.5°W on 25 Mar.

### SECTION J - SOUTH ATLANTIC

No records



Black Kite *Milvus migrans*. Bosphorus, Turkey. Photo: Steve Copsey.



Ring-billed Gull *Larus delawarensis*. Adult non-breeding. Morro Bay, California, 3 August 2010. Photo: Neil Cheshire.



King Penguin *Aptenodytes patagonicus* Grytviken, South Georgia, 20 Apr 2011. Photo: Steve Copsey.



Antarctic Tern *Sterna vittata*, South Georgia, 20 Apr 2011. Photo: Steve Copsey.





Heermann's Gull *Larus heermanni*. Adult non-breeding. Santa Monica, California, 30 July 2010. Photo: Neil Cheshire.



Black-footed Albatross *Diomedea nigripes*, immature, off Santa Rosa I. California, 31 July 2010. Photo: Neil Cheshire.

**BRITISH INDIAN OCEAN TERRITORY  
POST RNBWS NOVEMBER 2007 EXPEDITION  
ENVIRONMENTAL UP DATE**

**Peter Carr, DG21 LLC Environmental Director, Diego Garcia, BFPO 485.**



Lesser Noddy *Anous tenuirostris*. Diego Garcia, BIOT. Photo: Pete Carr.

Several RNBWS members have been involved with the ornithological development of the British Indian Ocean Territory (BIOT) over the life of the Society, particularly the atoll of Diego Garcia. This involvement has ranged from the seminal paper summarising what was known of the birds of BIOT by Dr. Bill Bourne (1971), released in 1971 as part of the baseline environmental review of the Territory prior to the establishment of the military facility on Diego Garcia; the contribution by various mariners who have reported their sightings in *Sea Swallow*, (that includes an article by W.R.F. Curtis (1975) about the visit of RFA Reliant in 1974 that produced some interesting records including 3 new species for the area), through to the findings of the three RNBWS expeditions that produced several new species for the Territory and the data of the breeding seabirds that qualified the Barton Point area of Diego Garcia and three associated islets to be designated as an IUCN Important Bird Area (IBA) (Carr, 2006).

Since the memorable November 2007 RNBWS expedition to Diego Garcia, the Society has very much remained involved with the Territory. From October 2008 to October 2010, Major Peter Carr RM was stationed on Diego Garcia as the British Forces Executive Officer and, from March 2010 to January 2011, Commander Christopher Moorey RN was the Commander British Forces and British Representative. Peter has now retired from the military and returned to Diego Garcia in February 2011 as the Base Operating Service Contractor's Environmental Director. Both Pete and Chris were extremely busy on the ornithological front, producing further new species for the Territory and, crucially, improving the knowledge of the seabird breeding phenology throughout the Territory.

It is worthy of mention when concluding this brief introduction and resumé of RNBWS activity in BIOT that in addition to the hugely important breeding seabird counts from Diego Garcia,

(the only methodical counts ever taken of one of the largest breeding colonies of Red-footed Booby *Sula sula* in the Indian Ocean), RNBWS members have added over 25% of the 115 or so avian species recorded in the Territory.

The following article sets out to update what ornithological and environmental progress has been made in BIOT since the November 2007 RNBWS expedition.

## POST NOVEMBER 2007 RECORDS

Table 1 provides a brief summary of some of the more interesting ornithological records from BIOT since November 2007 - the specific details of all the following records and more general bird records from BIOT can be found at [www.worldbirds.org](http://www.worldbirds.org). All visitors to BIOT are encouraged to submit their ornithological records to this central data base.

**Table 1. Post November 2007 ornithological records of interest from BIOT.**

SPECIES	LOCATION	COMMENT
Mallard <i>Anas platyrhynchos</i>	Salomons	A single male on 01 May 2009, identified through a photograph supplied by a visiting yacht crew. First for Chagos.
Garganey <i>Anas querquedula</i>	Diego Garcia	Now known to be a regular northern winter visitor in small numbers.
Greater Flamingo <i>Phoenicopterus roseus</i>	Salomons	It has come to light that a single bird was in the Salomons on 11 April 2007, identified through a photograph supplied by a visiting yacht crew. First for Chagos.
Intermediate Egret <i>Egretta intermedia</i>	Diego Garcia	A lone bird was found and photographed on 26 August 2011 - it still remains on the island. First for Chagos.
Glossy Ibis <i>Plegadis falcinellus</i>	Diego Garcia	The long-staying individual was last seen on 09 November 2008.
Yellow Bittern <i>Ixobrychus sinensis</i>	Diego Garcia	Record show this species is present in small numbers during the northern winter, possibly breeds.
Cinnamon Bittern <i>Ixobrychus cinnamomeus</i>	Diego Garcia	Two records; 12 November 2009 (adult) and 12 January 2010 (juvenile), both photographed. First for Chagos.
Black-crowned Night-heron <i>Nycticorax nycticorax</i>	Diego Garcia	Records indicate this species is possibly a regular northern winter visitor in very small numbers.
Indian Pond-heron <i>Ardeola grayii</i>	BIOT	Records indicate this species is probably a regular northern winter visitor in very small numbers throughout BIOT and may breed.
Grey Heron <i>Ardea cinerea</i>	Diego Garcia	Occasional records mainly from the northern hemisphere winter months; birds have not remained on the island longer than a few days.

Purple Heron <i>Ardea purpurea</i>	Diego Garcia	A second record for the Territory of a short staying bird on 15 February 2011.
Great Egret <i>Casmerodius (Egretta) albus</i>	Diego Garcia	One long staying individual was first found on 25 October 2008 and was joined by a second bird on 07 February until 07 March 2009 with one bird remaining until 24 April 2009. Another long-staying individual (or one of the same birds) reappeared on 04 November 2009 and remained until 19 April 2010. The last sighting was of an individual bird that put in a brief appearance on 04 October 2010.
Little/Dimorphic Egret <i>Egretta garzetta/dimorpha</i>	Diego Garcia	There are fairly regular records throughout all months; most birds are found on the lagoon by the POL Point. Three birds were present on 05 September 2011.
Red-tailed Tropicbird <i>Phaethon rubricauda</i>	Diego Garcia	A second and third breeding site was located on Diego Garcia in 2010 and 2011. This is still the only island where this BIOT rarity has been found to breed.
White-tailed Tropicbird <i>Phaethonlepturus ssp. Fulva</i>	Diego Garcia	This beautiful golden-washed sub-species has been seen occasionally on Diego Garcia and has been watched prospecting for breeding sites.
Lesser Kestrel <i>Falco naumanni</i>	Diego Garcia	A single photographed bird on 05 December 2009. <b>First for Chagos.</b>
Amur Falcon <i>Falco amurensis</i>	BIOT	Records indicate this species is probably an annual visitor in very small numbers, blown off its regular migration route across the western Indian Ocean from S.E. Asia to E. Africa.
Osprey <i>Pandion haliaetus</i>	BIOT	Two records, the first from Peros Banhos on 06 September 2010 and a second on Diego Garcia on 13 March 2011. <b>First for Chagos.</b>
Pied Harrier <i>Circus melanoleucos</i>	Diego Garcia	A single well-photographed individual was first recorded on 12 November 2009 and last recorded on 30 March 2010. <b>First for Chagos.</b>
Common Moorhen <i>Gallinula chloropus</i>	Diego Garcia	Since RNBWS first recorded this species in November 2007, it has since established itself as a breeding species, the population in 2011 being approximately 20 pairs.

Crab Plover <i>Dromas ardeola</i>	Diego Garcia	Still nowhere as common as pre-1995, occasional individuals are still recorded in all months.
Common Ringed Plover <i>Charadrius hiaticula</i>	Diego Garcia	Two birds were present in November 2009; this remains a very rare species.
Little Ringed Plover <i>Charadrius alexandrius</i>	Diego Garcia	Either a single long-staying well-photographed bird or two individuals have been found on Diego Garcia, one record on 30 December 2009 and a second on 28 February 2010. <b>First for Chagos.</b>
Pintail Snipe <i>Gallinago stenura</i>	Diego Garcia	This species appears to be a regular northern hemisphere winter visitor in small numbers. To confirm the identification, one bird was trapped, ringed and photographed. First confirmed record for the Chagos.
Common Snipe <i>Gallinago gallinago</i>	Diego Garcia	This species is a regular northern hemisphere winter visitor in small numbers.
Black-tailed Godwit <i>Limosa limosa</i>	Diego Garcia	The latest record of this rarity is a single long-staying individual that was first sighted on 13 October 2009 and remained until 02 June 2010.
Marsh Sandpiper <i>Tringa stagnatalis</i>	Diego Garcia	Records indicate this species is a regular northern hemisphere winter visitor in very small numbers.
Green Sandpiper <i>Tringa ochropus</i>	Diego Garcia	A second record for Chagos of a single bird seen between 01 February and 03 March 2009.
Little Stint <i>Calidris minuta</i>	Diego Garcia	A regular visitor in small numbers.
Red-necked Stint <i>Calidris ruficollis</i>	Diego Garcia	One confirmed record on 12 November 2009. This individual was well-photographed and these photographs were passed to Capt. Neil Cheshire and on to eastern stint experts for confirmation.
Temminck's Stint <i>Calidris temminckii</i>	Diego Garcia	First accepted record for the Chagos. A second record for the Chagos of a single long-staying bird from 05 January to 13 February 2009.

Long-toed Stint <i>Calidris subminuta</i>	Diego Garcia	The first bird was found on 20 October 2009; three birds were present on 14 November 2009 and the last individual was recorded on 08 April 2010. <b>First for Chagos.</b>
Pectoral Sandpiper <i>Calidris melanotos</i>	Diego Garcia	A single bird put in a brief appearance on 20 January 2009. The next sighting was of a single bird on 14 October 2009 that remained on island until 06 November 2009. The first record is of a lame individual bird on 20 October 2009 that was joined by a second bird on 30 October 2009, with the lame bird remaining until 13 December 2009. Another individual put in a brief appearance on 02 October 2010. <b>First for Chagos.</b>
Sharp-tailed Sandpiper <i>Calidris acuminata</i>	Diego Garcia	Records indicate this species is regular during the northern hemisphere winter in very small numbers.
Ruff <i>Philomachus pugnax</i>	Diego Garcia	A single well-photographed individual spent a brief spell on an ephemeral pond on 13 and 14 November 2009 and constitutes the second record for the Chagos.
Red-necked Phalarope <i>Phalaropus lobatus</i>	Diego Garcia	A single well-photographed individual joined a long-staying Oriental Pratincole between 26 December 2009 and 08 March 2010. <b>First for Chagos.</b>
Collared Pratincole <i>Glareola pratincola</i>	Diego Garcia	Records indicate this species is an annual visitor in very small numbers throughout the Chagos.
Oriental Pratincole <i>Glareola maldivarum</i>	Diego Garcia	Records indicate this species is an annual visitor in very small numbers to the sewage works on Diego Garcia.
White-cheeked Tern <i>Sterna repressa</i>	Diego Garcia	Records indicate this species is an annual visitor in small numbers to the sewage works on Diego Garcia.
White-winged Tern <i>Chlidonias leucopterus</i>	Diego Garcia	A single, most likely ship-assisted individual appeared on Diego Garcia between 17 September and 14 October 2009. It is presumed this bird met its demise on the island through its tameness.
Rock Pigeon <i>Columba livia</i>	Diego Garcia	<b>First for Chagos.</b>
Common Swift <i>Apus apus</i>	BIOT	Since the first record by RNBWS in November 2007, further records indicate this species is an annual visitor in small numbers throughout the Chagos.

Fork-tailed Swift <i>Apus pacificus</i>	Diego Garcia	Since the first record of this species by RNBWS in November 2007, there were a further five together present between 07-14 May 2010 and a single bird on 14-15 May 2011. A spectacular and well-photographed juvenile put in a brief appearance between 19-22 November 2009. <b>First for Chagos.</b>
European Roller <i>Coracias garrulous</i>	Diego Garcia	This species was first found in a thunder storm on Diego Garcia on 13 January 2010. A further eight birds were present on 22 February 2010 in Peros Banhos and finally up to four birds were together on Diego Garcia between 22 March - 24 April 2011. <b>First for Chagos.</b>
Blue-cheeked Bee-eater <i>Merops persicus</i>	BIOT	This species status remains an enigma on Diego Garcia. The two birds noted occasionally over the last decade were last seen 06 February 2011.
House Crow <i>Corvus splendens</i>	Diego Garcia	The first record came from an individual bird present on Diego Garcia during 18-21 January 2009. This was followed by two birds over 02-06 November 2009 and a further three birds on 17 February 2010.
Barn Swallow <i>Hirundo rustica</i>	Diego Garcia	<b>First for Chagos.</b> Three birds in transitional plumage were present on Diego Garcia between 17 November - 28 December 2008.
Rosy Starling <i>Sturnus roseus</i>	Diego Garcia	<b>First for Chagos.</b> Since the first record by RNBWS in May 2005, followed by the two birds recorded in November 2007, there has been a single further record on 24 October 2010 - all from Diego Garcia.
Yellow Wagtail <i>Motacilla flava ssp.</i>	Diego Garcia	



Red-tailed Tropicbird chick *Phaethon rubricauda*. Diego Garcia BIOT.

Photo: Pete Carr.

With two keen birders regularly working the Territory for a protracted period, it is hardly surprising that new species and repeat rarities were recorded. October and November 2009 were 'the' months to be on Diego Garcia. Throughout this period an ephemeral, rain-fed pond near the air terminal held Garganey, Great Egret, Black-tailed Godwit, Ringed Plover, Little Ringed Plover, Red-necked Stint, Little Stint, Long-toed Stint, Sharp-tailed Sandpiper, Common Snipe, Red-necked Phalarope and Oriental Pratincole, as well as the commoner waders. Fortunately, many of these super-rarities had the decency to remain on the island for the northern hemisphere winter and were still around when Cdr. Chris Moorey arrived in early 2010. The other plus during this period was the presence of Senior Chief Prushansky USN, a talented wildlife photographer who captured all of the above on camera.

## THE BREEDING SEABIRDS

In addition to the above incidental records, between October 2008 and October 2010, regular counts were made of the internationally important seabird colonies, both on Diego Garcia and the northern atolls. Historically, censuses of these breeding populations have occurred only in February and March. The opportunity to count these colonies throughout the year has revealed some interesting data that has altered the perspective on the future monitoring requirement of the breeding seabirds in BIOT.

For example, amongst the Sulidae, Red-footed Booby is now known to breed continuously throughout the year, with a spike in breeding numbers between January and May. Brown Booby *Sula leucogaster* and Masked Booby *Sula dactylatra* appear to breed at random times throughout the year, initiated by unknown triggers, and breed at different periods on different islands.



Of the two noddies present, Lesser Noddy *Anous tenuirostris* has an extremely complicated breeding strategy. Small colonies (< 100 pairs) are found breeding in all months throughout all of the atolls, including on rat-infested islands. The large colonies (> 1000 pairs) are found in the eastern Peros Banhos islands, the Three Brothers and Nelsons Island. These three separate breeding populations nest in different months. Brown Noddy *Anous stolidus* is a bird of concern in BIOT. It has two breeding strategies; a very small number of birds nest in trees on all atolls, including on rat-infested islands, throughout the year. The second strategy is to nest in thousands, sometimes tens of thousands, on the ground on (presumed) rat-free islands. This second breeding strategy did not occur between October 2008 and October 2010. It is likely that this is of grave concern, though due to the lack of long-term monitoring of these populations, that would give an understanding of breeding strategies, it is not known if this lack of terrestrial breeding for a protracted period occurs as part of a longer natural cycle.

A final word on the breeding seabirds must go to the one that is least understood in BIOT, the Sooty Tern *Sterna fuscata*. A well-researched bird on its breeding grounds elsewhere in the world, its breeding strategy in BIOT remains incompletely understood. What is known to date is that the populations in the Three Brothers generally breed at a different period from the large populations in Peros Banhos; they both appear to breed sub-annually and do not nest on the same islands every breeding period.

From the above it can be surmised that there is still a lot of long-term systematic monitoring required before meaningful terrestrial management plans can be constructed for the breeding seabirds of BIOT. In an effort to improve the knowledge and protection of the breeding seabirds of BIOT, the data gathered between October 2008 and October 2010 is being published in a paper reviewing the method for designating Important Bird Areas in BIOT (Carr, in prep.).

## ENVIRONMENTAL PROJECTS

To close this very brief update of environmental news from BIOT, mention must be made of the ecological restoration work taking place in the Territory, centred at present upon Diego Garcia. Two projects are presently running, one restoring native flora to areas of former coconut plantations on the Barton Point side of the island, the second restoring wetland habitats on the western inhabited side.

Diego Garcia was once a largely forested island that guano deposits indicate held thousands, if not hundreds of thousands of breeding seabirds, likely to have included as minimum Sooty Terns, noddies, boobies and frigatebirds. In the late 1700's and early 1800's when man first settled on Diego Garcia, the native forest was cut down and replaced with a monoculture of coconuts *Cocos nucifera*. Monocultures' limit biodiversity and, coconut is not a good nesting platform for seabirds. With the demise of the native forest, coupled with the introduction of alien predators, particularly cats *Felis sylvestris* and Black Rats *Rattus rattus*, came the catastrophic decline in breeding seabirds.

With the removal of the coconut plantation work force from Diego Garcia in the early 1970's, came a lack of management of the plantations, this has resulted in "coconut chaos". Without the fallen nuts being collected, the once open understory of the coconut groves has

become choked with competing coconut saplings. The upper-story has become enmeshed and entangled. This has produced a dense, dark dank habitat that offers little opportunity for biodiversity to flourish.

The concept behind the Barton Point Native Hardwood Restoration Project is to restore the ecological functionality of the native habitat. This has resulted in a collaboration with the RSPB to produce a long-term (25 year +) Management Plan, to be endorsed by the FCO, that will map out the habitat management of the eastern-side restricted area (from GEODDS north to Barton Point, about 16 miles). The long-term goal will be to increase biodiversity, particularly the breeding seabirds, the invertebrates and especially the endemic species and sub-species that occur and to maintain or improve the shoreline for the two endangered breeding turtles.

Since 2009 over 500 volunteers have given their time at the first site where restoration began. The volunteers have ranged from visiting scientists and dignitaries, US and UK military personnel including Brit Reps and Base Commanders and assorted other volunteer groups such as the Sacred Heart Chapel congregation from Seabreeze village. In 2011, two further former coconut plantations have been felled and habitat restoration is starting at these.

The second project has been the restoration of specific wetland areas on the western side of the island. Bulrush *Typha domingus*, thought to have been deliberately introduced quite recently (c. 1982), has invaded all of the drainage channels and once open ponds. In 1997 when the first of the RNBWS expeditions visited Diego Garcia, these wetlands were still supporting large flocks of waders and egrets. By 2010, the former open areas had been totally overtaken by bulrush and through a successional growth process is drying the habitat out. The former ponds and ditches are being transformed in to scrub, dominated by the shrub *Premna obtusifolia*. This scrub habitat harbours breeding feral cats and the recently colonised invasive reptile *Calotes versicolor*, neither species being welcome on Diego Garcia. Throughout 2011, teams of volunteers have been removing bulrush to restore open wetland habitat, the concentration of effort being put in to the Coral Sands Golf Course Lake. The benefits of this work are immediate, with eight of the nine species of dragonfly (Odonata) being sighted within a week of some of the bulrush being removed. Further information on the ecological restoration projects in BIOT is available in the Chagos News, the periodical newsletter of the Chagos Conservation Trust UK & USA (Carr, 2010; 2011), available at [www.chagos-trust.org](http://www.chagos-trust.org)

It is hoped that at some point in the future a RNBWS team will visit Diego Garcia to assist with both bird census work and the ecological restoration projects.

## REFERENCES

- Bourne, W.R.P. 1971. *The Birds of the Chagos Group, Indian Ocean*. Atoll Research Bulletin. 149:175-207.
- Carr, P. 2006. *British Indian Ocean Territory*. In, Sanders, S.M. (ed.) *Important Bird Areas in the United Kingdom Overseas Territories*. Sandy, U.K.: RSPB. Pp. 37-55.

Carr, P. 2010. *Working Towards Atoll Restoration*. Chagos News 35:3-8.

Carr, P. 2011. *Barton Point Native Hardwood Restoration Project Update*. Chagos News 38:7-10.

Curtis, W.R.F. 1975. *The visit of R.F.A. Reliant to the Chagos Archipelago, 6-10 October 1974*. Sea Swallow 25: 11-13.

#### *Editor's Note*

*In conjunction with the RSPB, Peter has recently published a book, The Birds of the British Indian Ocean Territory, published by Naturebureau and available from Amazon or the Natural History Book Shop. RNBWS members have made a huge contribution to the book which is reviewed on page 91 in this edition of Sea Swallow.*



Pomarine Skua *Stercorarius pomarinus*, Benghazi, Libya. Photo: Steve Copsey.

**BIRDS ON A TRIANGULAR VOYAGE BETWEEN CAPE TOWN,  
GOUGH ISLAND, THE TRISTAN DA CUNHA GROUP AND  
ST HELENA, 25 JANUARY-13 FEBRUARY 2011**



Penguin Island off Gough, 29 January 2011 with roost of Northern Rockhoppers.

*Photo: Beau Rowlands.*

## **Introduction**

This account takes in my sixth visit to Tristan da Cunha (37.1S 12.3W), third at Gough Island (40.4S 09.9W), and eighth to St Helena (15.9S 5.7W) - see Rowlands (1991, 1992, 1994, 1995, 2003, 2006, 2009). Observations are from a second one-off cruise of RMS *St Helena* (Voyage 154), in the year of the 50<sup>th</sup> anniversary of the 1961 Tristan volcanic eruption and evacuation of the Islanders to the UK (1961-63 - Crawford 1982). For financial reasons, the RMS *St Helena* had had her final annual trip to Tristan in 2004 - see Rowlands (1994, 2006) - and no more are currently planned.

The RMS *St Helena* sailed from Cape Town (E Berth) on 25 January, 2011 (1215 hrs, GMT), rounded Gough Island (Lot's Wife to Isolde Rock) on 29 January (1130-1300 hrs), was in the Tristan da Cunha Group from 30 January (Nightingale Island 0600 hrs, arrival Tristan's Edinburgh anchorage 0810 hrs) to 2 February (departure Tristan 1010 hrs), thence St Helena, 6 February (0800 hrs) to 8 February (1430 hrs), and arrived back at Cape Town (E Berth) on 13 February (alongside by 1130 hrs, GMT). Included were two trips around Inaccessible and Nightingale Islands on 31 January and 2 February, but where no landings were possible. On Tristan, 1 February, I joined a guided climb (party of 5) to the Base plateau (c400m - Ryan 2007:147), from Burntwood in the W, which on the 2006 visit (Rowlands 2006) was not possible due to unstable ground - see also Rowlands (1994). The ship's speed did not exceed 16.2 knots.

Throughout the voyage, using the ten-minute card system, counts were made daily, off the port bow, mainly at 0730, 1200 and 1630 hrs, ship's time - see Rowlands (1992). As before (Rowlands 2006), while most counts were in unbroken one-hour periods, the total for a full day (away from land) was three hours, with stern counts mainly at the start and end of each count period, supplemented at other times around the ship by digital photographs, with copies (on disc) lodged with RNBWS. Of the 252 ten-minute cards completed, these being naturally-occurring port bow counts as an indication of seabird density, 145 show a nil count, mainly in waters away from the Tristan da Cunha Group, though nil cards do show stern and other counts outside the port bow square. All times given are GMT, which from 29 January to 8 February (St Helena, before departure) was also ship's time.

This account forms an update to Rowlands (1991, 1992, 1994, 1995, 2001, 2003, 2006, 2009), Rowlands *et al* 1998. Copies of the data sheets (photocopied ten-minute cards, four per A4 sheet) are lodged with both the RNBWS and the Niven Library (Percy FitzPatrick Institute), University of Cape Town.

### Species Accounts

A total of 36 seabird species were identified, plus unidentified prions, storm-petrels and 'commic' terns. Where relevant, accounts are sub-headed - for (1) the *Outward leg* (Cape Town-Gough-Tristan, 1677 nm), (2) the *Tristan da Cunha Group*, (3) the *Tristan-St Helena leg* (1393 nm, including second outer islands trip, 2 Feb), and (4) the *Return leg* (St Helena-Cape Town, 1706 nm). Stern counts are also indicated. Positions given include first and last sightings of a species at sea.

Also included below, for completeness, are resident island landbirds - one endemic species each on Tristan (Tristan Thrush - see Richardson 1984:172-174, Ryan 2007:92-93) and St Helena (Wirebird - see Rowlands *et al* 1998:150-155, McCulloch 2004:64-65), and on St Helena six (of nine) introduced species seen (see Rowlands *et al*, 1998:67-68, McCulloch 2004:53-81). Other fauna, when seen together at sea with seabirds, are also mentioned - see also Discussion below.

**Jackass/African Penguin *Spheniscus demersus*.** Two inside Cape Town Docks, and one, astern, just outside, on departure, 30 Jan.

**Northern Rockhopper Penguin *Eudyptes chrysocome moseleyi*.** *Outward leg:* At Gough, on Penguin Island, 29 Jan, c 200 birds, on exposed rocky base and in tussock just above (3 photos, whole islet, 1139-40 hrs). Apparently moulting (visibility poor), they were on the E. sea-facing, side of the islet. One smaller group was closer to (just above) the water, whilst towards the N birds occurred higher up in the tussock, to about half the height of the islet. *Tristan da Cunha Group:* On Tristan, at Burntwood, 1 Feb, three adults - two near the shore and one close to reddish scree partly up a gulch leading to the Base plateau above. All (photographed) were in a very late stage of the moult, with merely traces, on and near the head.

**Wandering/Tristan Albatross *Diomedea exulans dabbenena*.** Around the islands virtually certain to be *Tristan Albatross D. dabbenena*. *Outward leg:* First sighting 28 Jan (1207 hrs)



Adult Atlantic Yellow-nosed Albatross, above Burntwood, Tristan, below Base Plateau,  
1 February 2011. *Photo: Beau Rowlands.*

an adult female at 38.7S 02.6W, circling vessel (ship's speed 15 kts). At 1257 hrs it alighted right alongside (to port) to inspect a floating all-brown waste concoction, from which it did not feed, though remaining on the surface with it to disappear astern. On 29 Jan two birds astern at 39.9S 08.7W (0740 hrs), two astern at 40.1S 09.0W (0840 hrs), around Gough (Snug Harbour, Saddle Island, Sea Elephant Bay, Tristania Rock) counts of 1 to 8 birds, around ship and astern, 1209-1258 hrs, thereafter 4 older singles (no brown on breast, photos 1336-39 hrs), thence singles 1630, 1657, 1715 and 1730 hrs, last (astern) at 39.6S 10.7W. On 30 Jan ten seen by passenger Ed Elsey (pers. comm.), abreast of ship, quite confiding, 28 nm S of Nightingale Island (0415 hrs). *Tristan da Cunha Group:* Two off Pyramid Rock, Inaccessible Island, 31 Jan (photo, 1400 hrs). *Tristan-St Helena leg:* Single bird, 2 Feb, at first astern, in sight of Tristan Group (with Tristan itself to starboard, 1400 hrs), then circling ship, 36.9S 12.6W (1406 hrs), thereafter one adult astern, 36.8S 12.6W (1500 hrs), settling on water (photo, 1505 hrs), and another astern at 36.2S 12.4W (1700 hrs), Tristan barely in sight. Juvenile astern at 35.9S 12.3W (1800 hrs), 63 nm from Tristan. *Return leg:* On 10 Feb single adult female astern, videoed by passenger B. Hotham (1000 hrs - pers. comm.) at 22.6S 02.7E, the northernmost record at 620 nm from St Helena (James Bay). On 12 Feb (1000 hrs) one astern at 30.1N 12.8E.

**Atlantic Yellow-nosed Albatross** *Thalassarche chlororhynchos*. *Outward leg:* First sighting two astern, 27 Jan, at 37.2S 03.9E (1400 hrs). On 28 Jan, single at 38.4S 01.3W (0740 hrs), and 2 (1 on water) at 38.6S 02.4W (1108 hrs). On 29 Jan single at 40.1S 08.9W (0804 hrs), at Gough Island singles Transvaal Bay (1201, 1205 hrs) and astern off Tristania Rock (1300 hrs), and finally a single at 39.7S 10.7W (1713 hrs). On approach Tristan 30 Jan present between Nightingale Island and Tristan with counts in all ten-minute periods 0700-0800 hrs, in flight up to 8, and off E side Tristan 2 rafts, 12 and 30 birds, not put up by vessel, and the first large flying-fish (0736 hrs - sea 16.3C). *Tristan da Cunha Group:* Present around Tristan anchorage, 30 Jan-2 Feb. Counts on 31 Jan off Tristan (1200-1220 hrs), and off Inaccessible

Island (1320-1400 hrs), in all periods, up to 4 birds, one in photo (1416 hrs, vessel bound Nightingale Island). On Tristan, 1 Feb, nest with large downy chick, unattended and partly rain-soaked, within rim of Base plateau (3 photos, 1244 hrs), and an adult on slope above Burntwood (4 photos, 1339 hrs), in a sheep-inhabited area of grass and shrubs at two-thirds up to the Base plateau. *Tristan-St Helena leg:* On 2 Feb, following departure Tristan, 12 photos (1100-1106 hrs, on way to Inaccessible Island), and one nearer to Nightingale (photo, 1127 hrs). One off Middle and Stoltenhoff Islands (photo, 1204 hrs). One off Blenden Hall, Inaccessible Island (1239 hrs). Thereafter northbound for St Helena 13 sightings - singles (10) and twos (3) from 36.8S 12.6W (1422 hrs) to 35.9S 12.3W (1800 hrs), the last (63 nm from Tristan) the only one astern. *Return leg:* Single bird, the northernmost, at 30.8S 13.9E (1456 hrs), 12 Feb, 1028 nm from St Helena (James Bay).

**Shy Albatross *Thalassarche cauta*.** *Outward leg:* Two at 33.9S 17.9E, 25 Jan (1640 hrs). One at 38.3S 01.1W, 28 Jan (0658 hrs).

**Sooty Albatross *Phoebastria fusca*.** All sightings singles. *Outward leg:* On 29 Jan, at 40.1S 08.9W (0832 hrs), at 40.2S 09.1W (astern, 0840 hrs), around Gough off Saddle Island (1232 hrs) and Sea Elephant Bay (1245 hrs), and at 39.7S 10.6W (1655 hrs). On 30 Jan, off Tristan (E side), at 37.1S 12.2W (0750 hrs). *Tristan da Cunha Group:* At Tristan two singles (in flight) over rim of Base plateau, 1 Feb (1250 hrs) - the guides confirmed breeding further inland but with time constraints not accessible. *Tristan-St Helena leg:* On 2 Feb, at 36.8S 12.6W (1450 hrs, northernmost, Tristan in sight, 13 nm).

**Southern Giant Petrel *Macronectes giganteus*.** All records dark morph. *Outward leg:* On 29 Jan two N of Gough (1338, 1339 hrs), thence 2 (astern) at 39.7S 10.6W (1630 hrs), 2 in count square (off port bow) 3 min later, and single at 39.6S 10.7W (1715 hrs). On 30 Jan (0600 hrs), birds were seen by passenger Ed Elsey (pers. comm.) off Nightingale Island, quite confiding. Same day singles off Stony Hill Point, Tristan (0706 hrs), E side of Tristan (0712, 0713 and 0747 hrs), and 3 (0750 hrs) 20 min E of arrival anchorage. *Tristan da Cunha Group:* On Tristan three (in flight) over rim of Base plateau, above Burntwood, 1 Feb (1245 hrs), but from the guides there was no indication of breeding, Gough being known as the nearest breeding locality (Ryan 2007:70).

**Great-winged Petrel *Pterodroma macroptera*.** *Outward leg:* On 25 Jan first sighting of this Tristan winter breeder (Richardson 1984:150, Rowlands 2009) a single at 33.9S 14.1E (1558 hrs), 28 nm from Cape Town (together with the first small flying-fish - sea 20.0C), thence 2 twos (1618, 1624 hrs), a four (on water, disturbed by vessel, 1633 hrs), and a single 4 min later. On 26 Jan first a five (0609 hrs), after which 4 singles, last at 35.6S 10.9E (1521 hrs). One at 36.8S 05.8E (0811 hrs), 27 Jan. On 28 Jan a two (1110 hrs), then 4 singles, last at 38.9S 03.6W (1530 hrs), all astern. On 29 Jan single astern at 39.9S 08.7W (0740 hrs). *Tristan-St Helena leg:* On 2 Feb, 2 at 1745 hrs, 2 at 35.9S 12.3W (1800 hrs, astern), and 4 at 2000 hrs, astern. On 3 Feb one at 0743 hrs, and 2 astern at 32.4S 10.9W (0820 hrs), the last 288 nm from Tristan. *Return leg:* On 10 Feb, northernmost sighting, a single at 22.1S 02.0E (0615 hrs), 594 nm from St Helena (James Bay), seen by Ed Elsey and other passengers, and a single at 22.2S 02.2E (0726 hrs). On 12 Feb, singles, 29.5S 11.9E (0603 hrs), 29.5S 12.0E (0616 hrs), 30.1S 12.8E (astern, 1000 hrs), and at 30.5S 12.9E (1033 hrs). On approach to Cape Town, 13 Feb, singles, twos, threes and a six, at 1007 hrs a three and at

## *Sea Swallow 60 (2011)*

1042 hrs a single both close to single South African (Cape) Fur Seals *Arctocephalus pusillus*, the last bird a single at 33.9S 18.4E together with a breaching Bryde's Whale *Balaenoptera edeni* (10 nm out, 1046 hrs).

**Atlantic Petrel** *Pterodroma incerta*. *Outward leg*: Singles, around Gough, 29 Jan, off Saddle Island (1239 hrs) and Sea Elephant Bay (1241 hrs), thence NW of Gough at 39.7S 10.6W (1648 hrs) and 39.6S 10.7W (1708 hrs), same day. *Tristan-St Helena leg*: One at 36.1S 12.3W, 2 Feb (1730 hrs), 47 nm from Tristan.

**Soft-plumaged Petrel** *Pterodroma mollis*. *Outward leg*: On 29 Jan first sighting two astern, 39.9S 08.7W (0740 hrs), then (to 0830 hrs) 11 singles, 4 twos, 2 threes and a four, and 3 birds astern (0840 hrs) at 40.1S 09.1W. Then, around Gough (Saddle Island and Sea Elephant Bay, same day 1233, 1237, 1244 hrs) single counts resp. of 3, 4 and 2 birds, finally singles at 39.7S 10.7W (1641 hrs) and 39.6S 10.6W (1715 hrs). *Tristan da Cunha Group*: On 31 Jan one off Tristan (1213 hrs), and off Inaccessible Island (approach to South Hill) singles at 1324 and 1336 hrs, four at 1344 hrs, 37.3S 12.6W. *Tristan-St Helena leg*: On 2 Feb two singles, 1455 and 1456 hrs, latter at 36.8S 12.5W. On 3 Feb one at 32.5S 11.1W (0737 hrs), the northernmost at 278 nm from Tristan.

**Bulwer's Petrel** *Bulweria bulwerii*. *Outward leg*: Three sightings, 26 Jan, one at 1033 hrs, three 1036 hrs and one 1037 hrs, the first at 35.3S 12.4E, 312 nm ex Cape Town. *Tristan-St Helena leg*: One at 32.4S 11.0W (0816 hrs), 3 Feb, 288 nm from Tristan.

**Prions sp** *Pachyptila* sp. Around Gough and Tristan virtually certain to be **Broad-billed Prion** *P. vittata*. *Outward leg*: One at 40.0S 08.9W (0809 hrs), 29 Jan.

**White-chinned Petrel** *Procellaria aequinoctialis*. *Outward leg*: On 25 Jan first sighting two birds (1558 hrs), together with a South African (Cape) Fur Seal and a dolphin (sea 17.0C), 27 nm ex Cape Town, followed by 6 singles, finally a 2 at 33.9S 17.9 E (1624 hrs). On 27 Jan one astern at 36.8S 05.8E (0820 hrs). On 28 Jan singles (all astern) at 38.6S 02.3W (1100 hrs), 38.9S 03.4W (1450 hrs) and 38.9S 03.6W (1530 hrs). Around Gough, 29 Jan, counts of one off South Point (1219 hrs), one at Snug Harbour (1228 hrs) and four off Saddle Island (1238 hrs). On 30 Jan one off Middle Island (photo, 0608 hrs). *Tristan-St Helena leg*: On 3 Feb one astern at 32.4S 11.0W (0820 hrs), and on 4 Feb one at 26.6S 09.1W (northernmost, 0737 hrs) 650 nm from Tristan. *Return leg*: On 13 Feb (final day) counts of one at 33.1S 17.3E (0557 hrs), 26 (1001 hrs), 2 (1003 hrs), and one (last bird) at 33.8S 18.2E (1011 hrs) 10 nm off Cape Town.

**Spectacled Petrel** *Procellaria conspicillata*. *Outward leg*: On 27 Jan, all sightings astern, following vessel, first at 36.6S 06.4E (0610 hrs), three at 37.0S 04.7E (1140 and 1200 hrs), and one at 37.3S 03.3E (1640 hrs). On 28 Jan one astern at 38.9S 03.5W (1450 hrs). *Tristan da Cunha Group*: One off Middle Island, 31 Jan (1550 hrs). *Tristan-St Helena leg*: On 2 Feb one at 36.9S 12.6W (1406 hrs), one (1450 hours), one (1453 hrs), one astern at 36.7S 12.6W (1500 hrs), two astern at 36.2S 12.4W (1700 hours), one (1758 hrs), and four astern at 36.0S 12.3W (1800 hrs). On 3 Feb, all sightings astern, four at 31.5S 10.7W (1200 hrs), one at 31.4S 10.7W (1225 hrs), two at 31.3S 10.6W (1230 hrs), three at 31.2S 10.6W (1300



## ✂ Sea Swallow 60 (2011)

hrs), one at 30.4S 10.3W (1620 hrs) and a four at 1945 hrs. On 4 Feb one at 26.5S 09.1W (0752 hrs, northernmost, 650 nm from Tristan). *Return leg:* Final sighting 13 Feb, a single at 33.1S 17.3E (0558 hrs), 73 nm from Cape Town.

**Cory's Shearwater *Calonectris diomedea*.** *Outward leg:* Of this N hemisphere passage migrant, the first sighting was on 25 Jan, one off Table Bay, 32 nm out (1618 hrs), then three singles, and a dolphin, (1626, 1629, 1630 hrs), last at 33.9S 17.9E. On 28 Jan, two singles (0708, 0717 hrs), second at 38.4S 01.1W. *Tristan-St Helena leg:* On 2 Feb two singles, 36.8S 12.6W (1455 hrs), in sight of Tristan, and three singles (1732, 1733, and 1746 hrs), last at 36.0S 12.3W, 60 nm from Tristan. *Return leg:* On 9 Feb, single bird (0646 hrs), 18.5S 02.8W (northernmost), 228 nm from St Helena (James Bay), and single (1111 hrs), 19.2S 01.9W. On 10 Feb, single (0646 hrs), at 22.1S 02.0E. On 11 Feb single (1548 hrs) at 27.3S 08.9E. On 12 Feb, a single (0536 hrs) at 29.4S 11.9E, and another (1524 hrs) at 30.9S 14.1E. On 13 Feb, on approach Cape Town, a single (0536 hrs) at 33.1S 17.2E, then 14 counts in the following 4 ten-minute periods with the 14<sup>th</sup>, at 33.2S 17.3E (0611 hrs), the highest a raft of 50 birds. Thereafter, a final single (0624 hrs) at 33.2S 17.4E, 65 nm from Cape Town, close to a Humpback Whale *Megaptera novaeangliae* and a Heaviside's Dolphin *Cephalorhynchus heavisidii*.



Great Shearwater *Puffinus gravis*, 2 February 2011. *Photo:* Beau Rowlands.

**Great Shearwater *Puffinus gravis*.** *Outward leg:* First sighting, and northernmost, two birds, and a South African (Cape) Fur Seal, at 33.9S 17.9E (1634 hrs), 25 Jan, 32 nm from Cape Town, followed by 2 next minute, and a single (1636 hrs). On 28 Jan singles at 38.7S 02.5W (1144 hrs), 38.9S 03.4W (1449 hrs) and astern at 38.9S 03.6W (1530 hrs). Early on 29 Jan four at 40.0S 08.8W (0758 hrs) thence between 0802 and 0840 hrs 15 singles, 4 twos, a three and 2 fours, and 4 astern (0840 hrs) at 40.0S 09.0W. Around Gough, same day, 4 off South West Islet (1206 hrs), 13 off Snug Harbour (1209 hrs), 3 singles off Saddle Island (1231-38 hrs), 2 singles and 2 twos at Sea Elephant Bay (1242-48 hrs), singles off Tristania

Rock (1254, 1256 hrs) and a raft of 25 birds off Isolde Rock put up by vessel (1258 hrs). Later same day 14 singles, 7 twos, and 4 threes (1631-1729 hrs), the last a three at 39.6S 10.7W. On 30 Jan (0600 hrs) seen by passenger Ed Elsey (pers. comm.) off Nightingale Island, also 25 in photo (0604 hrs). Then off Tristan (E side, 0702-35 hrs) a single, 2 twos, a three, a six and a raft of 8 birds, last a count, also 8, off Sandy Point. *Tristan da Cunha Group*: On 31 Jan off Tristan (1201-1220 hrs), 5 singles, a two and a three, the last a single at 37.2S 12.2W. Then, approaching Inaccessible Island (1323-1400 hrs), 6 singles, 3 twos, 2 threes, 2 fours, a five, 3 eights, a fifteen and concluding with two large rafts, c10,000 (1357 hrs, off South Hill) and c20,000 (1400 hrs, off Pyramid Rock). Then birds (photos) on crossing to and at Nightingale group, 1415-1551 hrs, largest counts 22 (1416 hrs) and off Stoltenhoff Island c 200 and c 400 (1456 hrs) and c 500 (1458 hrs), finally three over kelp beds near Pin Rock (Middle Island, 1545 hrs). On 2 Feb (photos), NE of Inaccessible, four (1111 hrs), two (1132 hrs), four (1133 hrs), four (1134 hrs). Then off South Hill 121 and 46 birds (photos, 1219 hrs), and 84 birds off Pyramid Rock (photo, 1229 hrs). *Tristan-St Helena leg*: On 2 Feb (in 6 ten-minute periods, from 1401 hrs) 9 singles, 7 twos, 2 fours, a five, a seven, and a ten. The last, a single, was at 36.8S 12.6W (1457 hrs), 16 nm from Tristan. All were in sight of the Tristan da Cunha Group.

**Sooty Shearwater *Puffinus griseus*.** *Outward leg*: First sighting, 25 Jan, a single at 34.0S 18.0E (1628 hrs), 35 nm from Cape Town, thence a three (1640 hrs). Next day singles at 34.9S 13.7E (0604 hrs) and 34.9S 13.6E (0641 hrs). On 29 Jan single astern at 40.0S 08.7W (0740 hrs) and 2 singles (1642-43 hrs), last at 39.7S 10.6W (vessel bound Tristan from Gough). *Return leg*: On final day, 13 Feb, off Table Bay, 38 birds at 33.8S 18.2E (1005 hrs), followed by rafts of 100+ (1017 hrs) and 48 (1019 hrs) both flushed by vessel, finally 16 birds (1023 hrs) close to a South African (Cape) Fur Seal, 6 nm from Cape Town Docks.

Storm-petrels sp. *Outward leg*: Two unidentified storm-petrels at 33.9S 17.9W (1637 hrs), 25 Feb. *Tristan-St Helena leg*: Single, 36.8S 12.6W (1440 hrs), 2 Feb.

**Madeiran Storm-petrel *Oceanodroma castro*.** *Tristan-St Helena leg*: A single at 19.7S 07.0W (1222 hrs), 5 Feb, 252 nm from St Helena (James Bay).

**Wilson's Storm-petrel *Oceanites oceanicus*.** *Outward leg*: On 29 Jan, single at Gough Island (Sea Elephant Bay, 1241 hrs), and single at 39.7S 10.7W (1659 hrs). *Tristan da Cunha Group*: Single off Tristan, 37.2S 12.2W (1210 hrs), 31 Jan. *Return leg*: On 13 Feb, off Cape Town (75 nm), at 33.6S 17.4E (0627 hrs), a flock of 13 birds close to a Humpback Whale and a Heaviside's Dolphin.

**White-faced Storm-petrel *Pelagodroma marina*.** *Tristan-St Helena leg*: On 2 Feb single bird at 36.2S 12.4W (1721 hrs), and single at 36.1S 12.3W (1757 hrs), latter 62 nm from Tristan.

**Black-bellied Storm-petrel *Fregetta tropica*.** *Tristan-St Helena leg*: On 2 Feb single bird at 36.2S 12.4W (1721 hrs), 53 nm from Tristan.

**White-bellied Storm-petrel *Fregetta grallaria*.** *Tristan da Cunha Group*: On 31 Jan single at 37.2S 12.2W (1216 hrs), vessel off Tristan bound Inaccessible Island.

**Red-billed Tropic Bird *Phaethon aethereus*.** *Return leg:* On 8 Feb. two at 16.3S 05.8W (1538 hrs), then one at 16.4S 05.5W (1622 hrs), latter 40 nm from St Helena (James Bay), circling ship.

**Cape Gannet *Morus capensis*.** *Outward leg:* On 25 Jan, nearest 30 nm from Cape Town, 2 singles (first 1603 hrs, second on water), a three and a four, finally a four at 33.9S 17.9E (1623 hrs), 34 nm out. *Return leg:* On 13 Feb, first a two astern, at 33.1S 17.2E (0530 hrs, 90 nm from Cape Town), then a single (0629 hrs), and an adult and 2 juveniles astern (0630 hrs), finally 26 adults on water passed close by ship (0815 hrs), 45 nm from Cape Town.

**Masked Booby *Sula dactylatra*.** *Tristan-St Helena leg:* Around St Helena, 6 Feb, singles, off Speery Island (0658 hrs), three in flight above Shore Island (photo of island, 0704 hrs) and one over George Island (photo, same minute). Present off George Island (0721 hrs). *Return leg:* Off St Helena (SW to S), 8 Feb, an eight (1534 hrs) and a two a minute later, then one at 16.1S 05.7W (1544 hrs) with a Short-finned Pilot Whale *Globicephala macrorhynchus* present, then 24 birds, feeding, at 16.2S 05.6W (1618 hrs), all within sight of island. Single (adult) at 22.1S 02.1E (0653 hrs), 10 Feb. Immature astern, 26.6S 08.0E (1205 hrs), and juvenile at 27.2S 08.8E (1531 hrs), 11 Feb, final sighting, 1090 nm from St Helena (James Bay). See also Discussion below for what is possibly the first mainland breeding record for St Helena.

**Brown Booby *Sula leucogaster*.** *Tristan-St Helena leg:* One to starboard, 5 Feb., 18.8S 06.7W (1658 hrs), 60 nm S of St Helena and disappearing S (passenger B. Wheeler, pers. comm.). One off Shore Island, St Helena, 6 Feb (0730 hrs). *Return leg:* On 8 Feb, two at 16.2S 05.7W (1545 hrs), 37 nm from St Helena (James Bay).

**Cape Cormorant *Phalacrocorax capensis*.** *Outward leg:* On 25 Jan one in Cape Town Docks (1415 hrs) and one in flight at 33.9S 18.1E (1548 hrs), within 20 nm. *Return leg:* On approach Cape Town, 13 Feb, single astern at 33.8S 18.2E (1000 hrs), within 15 nm, and 3 singles and a five outside the Docks (1051-56 hrs), the five at 1054 hrs close to 14 South African (Cape) Fur Seals, a large jellyfish and a White-tip Shark *Carcharhinus longimanus*.

**Wirebird *Charadrius sanctaehelenae*.** On St Helena, nest, two eggs, in cattle-frequented area (amongst cowpats) on Deadwood Plain, 8 Feb (1228 hrs).

**Southern Skua *Catharacta antarctica*.** *Outward leg:* On 29 Jan, around Gough, 2 singles off the Glen (1152 hrs), 3 singles Transvaal Bay (1201, 1203, 1204 hrs), a four off South Point, around mast (1212 hrs), single at Snug Harbour (1228 hrs), and 2 singles off Saddle Island (1233, 1234 hrs). Present S of Nightingale Island, 30 Jan (before 0500 hrs – passenger Ed Elsey, pers. comm.), single (photo, 0615 hrs). *Tristan da Cunha Group:* On 31 Jan, at Inaccessible Island, counts of three off South Hill (1346 hrs), four (1354 hrs) and twelve (1356 hrs) off Pyramid Rock, finally three around ship (photos, 1414 hrs). *Return leg:* One at 33.1S 17.3E (0554 hrs), 13 Feb, 65 nm from Cape Town.

**Kelp Gull *Larus dominicanus*.** *Outward leg:* On 25 Jan present in and off Cape Town Docks, outermost a single astern at 34.0S 17.9E (1640 hrs), 38 nm from Cape Town. *Return leg:* On 13 Feb first sighting two birds (0815 hrs), 45 nm from Cape Town (0815 hrs), others four (1002 hrs), three (1008 hrs) and one (1018 hrs), last seen 15 nm from Cape Town.

## ✧ Sea Swallow 60 (2011)

**Hartlaub's Gull *Larus hartlaubii*.** *Outward leg:* On 25 Jan present in and off Cape Town Docks, last a single at 33.9S 18.0E (1628 hrs), 35 nm from Cape Town. *Return leg:* On 13 Feb one (1054 hrs) outside Cape Town Docks, close to 14 South African (Cape) Fur Seals, a large jellyfish and a White-tip Shark.

**'Commie' (Common/Arctic) Tern *Sterna hirundo/paradisaea*.** *Outward leg:* Two singles in winter plumage off Cape Town Docks, 25 Jan (1559, 1622 hrs). *Return leg:* On 13 Feb, 12 counts of up to three birds, all off Cape Town Docks (1011-1100 hrs), single at 1034 hrs together with a white butterfly.

**Antarctic Tern *Sterna vittata*.** *Outward leg:* At Gough, 29 Jan, 3 singles (1235-37 hrs) off Saddle Island. At Tristan, 30 Jan, four birds E of Edinburgh anchorage (0800 hrs). *Tristan da Cunha Group:* On 31 Jan, around Inaccessible Island, a single, 2 twos and a six off South Hill (1345-49 hrs), and counts of 6 (1354 hrs) and 14 birds (1356 hrs) off Pyramid Rock, and on photos Nightingale Island Group three birds (1545, 1547, 1549 hrs). On Tristan, 1 Feb (1505 hrs), adults and newly-fledged young birds present at the Potato Patches.



Antarctic Tern *Sterna vittata*, 31 January 2011. Photo: Beau Rowlands.

**Sooty Tern *Sterna fuscata*.** *Tristan-St Helena leg:* Around St Helena, 6 Feb, 2 singles off Speery Island (0634, 0642 hrs), and another off George Island (0712 hrs). *Return leg:* On 8 Feb, one at 16.2S 05.6W (1609 hrs), 43 nm from St Helena (James Bay).

**Swift Tern *Sterna bergii*.** *Return leg:* Off Cape Town Docks, 13 Feb, 3 singles (1050, 1059, 1100 hrs) and 2 twos (1001, 1010 hrs), last sitting on floating kelp.

**Fairy Tern *Gygis alba*.** *Tristan-St Helena leg:* Around St Helena, 6 Feb, off Speery Island a single, a three and a two (0635-37 hrs), and off George Island 2 twos (0713, 0717 hrs). In Jamestown same and following two days present at the Castle Gardens and St James' Church.

## *Sea Swallow 60 (2011)*

perching also on telephone wires (7 Feb, 1127 hrs). However, the birds were absent from the James Bay wharf-side cliffs, a former regular roost (Rowlands *et al* 1998:172,173), due to the installation of wire mesh (August 2008) to counter rockfalls (*St Helena Herald* Vol. IX No 43). *Return leg*: On 8 Feb, 3 singles (1535, 1536, 1538 hrs), last sighting a single at 16.2S 05.7W (1605 hrs), 42 nm from St Helena (James Bay).

**Brown (Common) Noddy *Anous stolidus*.** *Tristan-St Helena leg*: First sighting, 5 Feb, a single at 19.7S 07.0W (1214 hrs), 235 nm from St Helena. At St Helena, 6 Feb, one E of George Island (0707 hrs). *Return leg*: On 8 Feb, a six (1552 hrs) and 3 twos (1606, 1616, 1617 hrs), the last at 16.2S 05.6W, 45 nm from St Helena (James Bay).

**Black Noddy *Anous minutus*.** *Tristan-St Helena leg*: Around St Helena, 6 Feb, two off Speery Island (0633 hrs), E of George Island ten birds (0702 hrs) and one (0704 hrs), finally flock of 20 (0728 hrs) just NE of George Island moving out to sea. As reported by fellow-passengers on a guided dolphin-viewing boat trip, 6 Feb, the birds had suddenly deserted their long-established colonial nest sites on Egg Island, Peaked Island and adjacent mainland cliffs (Rowlands *et al* 1998:169), where nest-building (2010-11 season) had already taken place. This is most likely attributed to a sudden fall in their prey items off shore, the cause of which unknown.

**Feral Pigeon *Columba livia*.** St Helena, present in and around Jamestown, including Castle Gardens, waterfront, and Luffikins Spring, 6 and 7 Feb.

**Peaceful Dove *Geopelia striata*.** St Helena, prolific in Castle Gardens and waterfront area, 6 and 7 Feb. Frequently displayed comfort behaviour when the sun was out.

**Tristan Thrush *Nesocichla eremita*.** Endemic, on Tristan, 1 Feb, 7 birds, foraging within a mix of Bog Ferns *Blechnum palmiforme* and low Island Trees *Phylica arborea* on the slopes above Burntwood (1030 hrs), about half way up guided climb to the Base plateau.

**Indian Myna *Acridotheres tristis*.** On St Helena a common introduction present in the Castle Gardens and elsewhere around Jamestown, 6 to 8 Feb.

**Madagascar Fody *Foudia madagascariensis*.** St Helena, red males present inland, on road to Thompson's Wood and Horse Ridge, 6 Feb.

**Common Waxbill *Estrilda astrild*.** St Helena, present in Castle Gardens, Jamestown, 6 Feb.

**Yellow Canary *Serinus flaviventris*.** St Helena, present in Castle Gardens, Jamestown, 6 Feb.

## Discussion

On this triangular voyage, in both tropical and temperate waters, all the seabirds above would be regarded as 'routine' observations. On the *Outward leg*, solely temperate (as was the full 2006 voyage - Rowlands 2006), birds were seen in all full-hour counts and shorter periods, though in Jan 1993 (Rowlands 1994), likewise temperate, there were two full hours

of nil counts. However, on this triangular voyage (252 cards, 42 count hours), compared with 2006 (174 cards, 29 count hours), there were fewer sightings despite the higher number of counts. Of the 84 ten-minute cards on the first leg 38 were nil counts, whereas in 2006 (whole voyage), it was nil in only 25 cards. Of the remaining nil cards, there were none for the *Tristan da Cunha Group*, 48 on the *Tristan St Helena leg* and 59 on the *Return leg*. Of the 252 ten-minute cards in total, 145 were nil cards.

Following seven species of albatross in 2006 (Rowlands 2006), only four were recorded this voyage, as in 1993 (same vessel - Rowlands 1994). See also Ryan (2004, 2006) and Rowlands (2006) regarding long-liners as a cause of this decrease, and other threats. Despite the longer voyage the disappointing drop in the number of albatross sightings was notably obvious to fellow-passengers repeating from the 2006 voyage, in particular Michael Swales (pers. comm.). Fewer Northern Rockhopper Penguins were seen, for example the roost on Penguin Island at Gough showing a c 60% decrease from the c 500 birds seen there in 2006 (12 Feb – Rowlands 2006). Also especially noticeable between Cape Town and Tristan da Cunha (*Outward leg*), possibly due to trophic factors, was the absence of large mid-ocean gatherings of prions, and of Great Shearwaters in preparation for their northward migration – in marked contrast with the 2006 voyage when both species were present in their thousands (Rowlands 2006). A decrease was also notable with Cape Cormorants in and around Cape Town Docks, 25 Jan and 13 Feb, where the characteristic flocks (up to 50 seen in 2006 – Rowlands 2006) were absent.

The *Tristan-St Helena Leg* was of special interest, given the very few shipping opportunities on this route and the move from temperate into tropical waters. I had done this leg just once before, southbound, 3-7 Feb 1989 – see Rowlands (1991, 1992), and it would be useful to cover this in months other than Feb, especially in the winter (Jun-Aug) when there is an increase in Antarctic and sub-Antarctic breeders moving north, such as Pintado Petrel *Daption capense* and Blue Petrel *Halobaena caerulea* (Ryan 2007:72, Richardson 1984:179, Rowlands 2009).

More so, as then, of special interest on this, and the *Return leg*, were anticipated birdless gaps (Rowlands 1991, 1992, 2003) between the northernmost sightings of known temperate/sub-Antarctic breeding species associated with the Tristan Group and further S and the southernmost sightings of known tropical breeding species from St Helena and further N (Harrison 1983). On the *Tristan-St Helena Leg*, the gap was between 26.5S (4 Feb, a Spectacled Petrel, 650 nm from Tristan), and 19.7S (5 Feb, a Madeiran Storm-petrel, 252 nm from St Helena). Given the direct distance between Tristan and St Helena (James Bay) as 1315 nm (=2435 km – Rowlands *et al* 1998:34), the gap was 412 nm, compared with 779 nm in Feb 1989 (Rowlands 1992:41). On the *Return leg*, however, there was instead an overlap, with the northernmost temperate sighting, a Great-winged Petrel on 10 Feb (594 nm from St Helena) being well N of the southernmost tropical sighting, a Masked Booby (juvenile) on 11 Feb (1090 nm from St Helena). Another feature on this leg was the more frequent presence of the passage-migratory Cory's Shearwater, 22 sightings in all, every day from 9 to 13 Feb. Included is the often birdless Walvis Ridge (22S-26S - Rowlands 1992, 2003), on 10 and 11 Feb, which besides Cory's Shearwater included also Wandering Albatross, Great-winged Petrel and Masked Booby, though all only singles. Other than immediately offshore at St Helena (8 Feb), where the highest count was 24 birds (Masked Booby, 1608 hrs), the only two counts north of the Walvis Ridge (9 Feb, 0646, 1111 hrs) were single Cory's Shearwaters.

Of birdless gaps on this leg, the widest was 362 nm (25 hours), between 22.8S (10 Feb) and 26.6S (11 Feb), mostly within the Walvis Ridge. Previously, in 2001 (22-27 Dec - Rowlands 2003:32,41), the widest gap, between 19.3S (Fairy Tern, 23 Dec) and 22.0S (Great-winged Petrel, 24 Dec) was 355 nm (Rowlands 2003:27,32).

Included is a record, possibly the first, of mainland breeding of the Masked Booby at St Helena. On 7 Nov 2010 (1454 hrs), near Castle Rock Point in the S, an adult with outstretched wings standing over 2 eggs was photographed by Gilly Stroud. The nest site, high up, overlooked Speery Island and Upper and Lower Black Rocks that are included in the picture. A copy of the photo was made available by cousins Alfred and Ethel Stevens of Horse Ridge, during a visit on 6 Feb. Also noticeable earlier that day, from the ship on arrival, and possibly linked, was a considerable reduction in the guano deposits on George Island, compared with Shore Island and Speery Island, suggesting that George Island had been/was being abandoned by the birds, perhaps in favour of the mainland. This may well be due to chick and/or egg predation by splash zone *Grapsus* crabs. In 1992 (6 Feb - Rowlands 1995) the crabs, swarming in great numbers, occurred all over the island, up to the 32m summit where a large specimen was photographed alongside two eggs (Rowlands *et al* 1998:125,126, Plate 30), though there was no proof of predation. According to fishermen, who periodically gathered guano on the stacks (pers. comm.), there had been no subsequent ornithological landings on George Island (very difficult - Rowlands 1995), but predation of chicks of the Brown Noddy by the crabs at St Peter and St Paul's Rocks, between Brazil and West Africa (Murphy 1936), would suggest this as a possible cause of the current desertion.

Flying-fish, being a principal prey of seabirds such as boobies and terns (Rowlands *et al* 1998:45-46), and given here as large and small, occurred on all legs of this voyage. From the above, their distribution is also subject to sea temperatures. On the *Outward leg*, the only sighting was a single (small) on 26 Jan (0624 hrs), at 34.9S 13.6E (sea 19.2C), 254 nm from Cape Town. In the *Tristan da Cunha Group*, all large (*Cheilopogon pinnatibarbatius* - Ryan 2007:124,125), the first two seen (30 Jan, 0748 hrs), were E of the Tristan anchorage (sea 16.3C), thereafter present at all counts next day, on Tristan-Inaccessible run (sea again 16.3C). On the *Tristan-St Helena leg* present every day, the first a large on 2 Feb (1420 hrs) at 36.9S 12.6W (sea 20.0C), and the first small on 3 Feb (1246 hrs) at 31.3S 10.6W (sea 23.5C). Here, the smalls, some indeed tiny (in schools, up to 20), by far outnumbered the large. The last 2 (large) were seen on 5 Feb (1724 hrs) at 18.7S 06.5W (sea 24.0C). On the *Return leg* the first was a large off St Helena on 8 Feb (1540 hrs), at 16.1S 05.7W (sea 25.6C), the first smalls (12) next day (0730 hrs), showing bluish in fins, at 18.6S 02.7W (sea 24.6C). The largest schools, indeed swarms, on this leg (and the voyage) were 200+ (smalls, indeed tiny) at 22.2S 02.1E (0713 hrs) on 10 Feb (sea 23.6C), just within Walvis Ridge waters where, indeed, with such abundant prey it is hard to reconcile this with the general lack of seabird sightings in this area. The last sighting was of 2 smalls on 11 Feb (1609 hrs) at 27.3S 09.0E (sea 24.8C), there being none seen on the final 2 days - 12 Feb (sea 21.0C-20.7C) and 13 Feb (sea 19.2C-12.0C) - into Cape Town.

The only seals seen were South African (Cape) Fur Seals *Arctocephalus pusillus*, on 25 Jan (1554 and 1632 hrs), and on 13 Feb 8 singles (0624-1051 hrs) and a group of 12 (1054 hrs), all near Cape Town. The cetaceans seen were unidentified dolphins on 25 Jan (1558 and 1627 hrs), a Short-finned Pilot Whale *Globicephala macrorhynchus* at St Helena on 8 Feb

(1643 hrs), and, off Cape Town, 13 Feb, a Humpback Whale *Megaptera novaeangliae* (0624 hrs), a Heaviside's Dolphin *Cephalorhynchus heavisidii* (0628 hrs), and a breaching Bryde's Whale *Balaenoptera edeni* (1046 hrs).

The only other shipping seen was (1) the liner *Queen Mary 2* that passed Tristan, without stopping, on 1 Feb (on passage from South America to the Cape), (2) a distant unidentified southbound tanker to port S of St Helena on 4 Feb (2019-2022 hrs), (3) an unnamed fishing vessel on 12 Feb seen from 29.5S 11.9E (0600 hrs), and (4) an unidentified white ship to port, passing northbound just 5 min later. Shipping within sight of Cape Town on 25 Jan and 13 Feb were not included.

Sadly, and in conclusion, it needs to be reported that on the *Tristan-St Helena leg*, between 2 Feb (36.2S 12.4W, 1700 hrs) and 5 Feb (20.5S 07.2W, 0736 hrs) on nearly every count period we came upon considerable deposits of discarded waste. Most unexpectedly for such a seldom-covered track, and far worse than on the other legs, this consisted largely of plastic bags, empty plastic chemical containers, plastic boxes and lids, fishing and other floats, polystyrene fragments, plywood and other driftwood, plastic rings, a 5m coil of rope with large deposits of barnacles, a white protective facemask with its elastic strap, and various other pieces of non-organic matter. Given also the great distance over which this was encountered, 975 nm, it is included here in the light of the much-publicised threat this poses to all marine life.

### Acknowledgements

I acknowledge with thanks the assistance of John Cooper in initially providing 10-minute cards, and advising on methodology, and Michael Swales for his perusal of the draft and his most helpful comments during and after the voyage. I also thank Captain Rodney Young and the duty officers of the RMS *St Helena* who provided access to instruments on the bridge and assistance in recording data. The RNBWS, in particular Steve Copsey, is especially thanked for the loan of a newly-purchased Canon DSLR camera and lenses (my first experience of digital!), and Arthur Frelford, of Westgate PAST [Pictures, Archives, Stories, Tales], a principal Newcastle upon Tyne archive, is thanked for his kind assistance in getting the photos captioned and copied to disc. On the Tristan climb (to the Base plateau, from Burntwood) our party was most superbly escorted by our guides, Matthew Green and Clifton Repetto, while Terence Green kindly provided transport to and from Burntwood, with an extra call at the Potato Patches for Antarctic Terns. I also express my appreciation to the many fellow passengers, officers, and crew, who drew my attention to birds.

### References

- Crawford, Allan 1982. *Tristan da Cunha and the Roaring Forties*. Edinburgh & London: Charles Skilton Ltd; Cape Town: David Philip.
- Harrison, P. 1983. *Seabirds – an identification guide*. Beckenham, Kent: Croom Helm.
- McCulloch, Neil 2004. *A guide to the birds of St Helena and Ascension Island*. Sandy, Bedfordshire: Royal Society for the Protection of Birds.



- Murphy, R.C. 1936. *Oceanic Birds of South America*. New York: Macmillan.
- Richardson, M.E. 1984. *Aspects of the ornithology of the Tristan da Cunha group and Gough Island, 1972-1974*. Cormorant 12: 121-201.
- Rowlands, B.W. 1991. *Birding in the South Atlantic*. Birding in Southern Africa 43: 19-23, 25, 44-46, 51.
- Rowlands, B.W. 1992. *Seabird observations between Ascension, St Helena and Tristan da Cunha in the central South Atlantic*. Marine Ornithology, 20: 25-42.
- Rowlands, B.W. 1994. *A sea-birding cruise to Tristan da Cunha, 20 January to 2 February, 1993*. Sea Swallow 43: 64-68.
- Rowlands, B.W. 1995. *St Helena's offshore outliers, 1989-1992*. Sea Swallow 44: 44-48.
- Rowlands, B.W. 2001. *St Helena and the dependencies of Ascension Island and Tristan da Cunha, including Gough Island*. In: Fishpool, L.D.C. & Evans, M.I. (Eds.) *Important Bird Areas in Africa and associated islands: Priority sites for conservation (1160 pp)*. Newbury and Cambridge, UK: Pisces Publications and BirdLife International (BirdLife Conservation Series No. 11).
- Rowlands, B.W. 2003. *Seabird observations between Cape Town and Ascension Island, October 2000 and December 2001*. Sea Swallow 52: 26-32, 41-42.
- Rowlands, B.W. 2006. *Birds on the Tristan da Cunha quincentenary voyage, between Cape Town, the Tristan Group and Gough Island, 30 January-17 February 2006*. Sea Swallow 55: 18-31.
- Rowlands, B.W. 2009. *Birds on two winter voyages between Cape Town, Gough Island and Tristan da Cunha, in June-July of 1974 and 1975*. Sea Swallow 58: 52-58.
- Rowlands, B.W., Trueman, T., Olson, S.L., McCulloch, M.N. and Brooke, R.K. 1998. *The Birds of St Helena*. BOU Checklist No. 16, Tring, UK: British Ornithologists' Union.
- Ryan, P.G. 2004. *Conserving albatrosses: current threats*. Africa: Birds & Birding 9 (1): 38-45.
- Ryan, P.G. 2006. *The long haul: a decade of conserving albatrosses and petrels*. Africa: Birds & Birding 11 (2): 52-59.
- Ryan, Peter G. (Ed.) 2007. *Field guide to the animals and plants of Tristan da Cunha and Gough Island*. Newbury: Pisces Publications.
- St Helena Herald* Vol. 9 No. 43, 5 March 2010. Jamestown: St Helena News Media Services.

**Beau W. Rowlands, 23 Dunira House,  
110 Osborne Road, Jesmond, Newcastle upon Tyne,  
NE2 2TA, United Kingdom (beauw@tesco.net).**

COMMON WHITE TERN ON GREEN MOUNTAIN,  
ASCENSION ISLAND



Common White Tern chick, Green Mountain, 1 April 2011. *Photo:* Tony Tindale.

Apart from vagrants, the Common White Tern *Gygis alba* is now the only non-introduced species to be found inland on the Ascension Island mainland. Within the Green Mountain National Park the species breeds on the cliffs and mature trees of Green Mountain (859m).



Green Mountain. *Photo:* Tony Tindale.

Throughout my eight days on island (25 Mar - 2 Apr 11) with the Army Ornithological Society, I observed up to eighty birds flying around the mountain each morning, from the

## *Sea Swallow 60 (2011)*

accommodation at RAF Travellers Hill. During a co-ordinated count of the Terns on Green Mountain I counted 131 birds on the cliffs, shown in the photograph above, with many more in flight and in the trees. The species could be observed at close quarters in the trees within the National Park and one nest was even located in a roadside tree. It was that particular nest that contained the chick photographed below. I also got to see several juveniles on the ground that were very reluctant to take flight, during an early morning visit to the Park on my last day on island.



Common White Tern juvenile, Green Mountain, 2 April 2011. *Photo: Tony Tindale.*



Adult Common White Tern, Bullocks Pond, Ascension Island, 28 March 2011.  
*Photo: Tony Tindale.*

The introduced Red-necked Francolin, Common Mynah, Common Waxbill, Yellow Canary and Domestic Chicken are the only other resident species to be found inland on Ascension Island.

**Antony D Tindale**

PLUMAGE CONTAMINATION ON WANDERING ALBATROSSES –  
AN AERODYNAMIC MODEL.

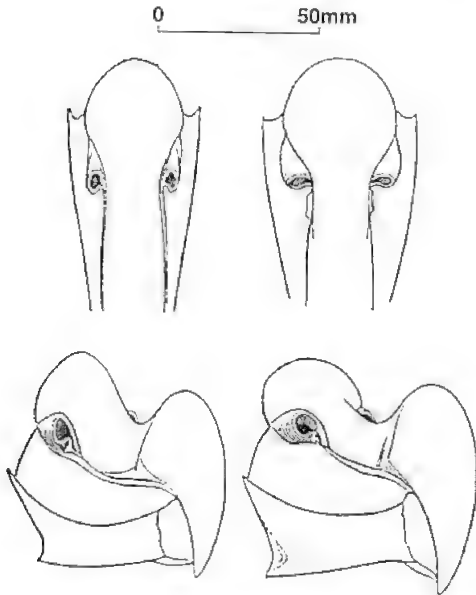
W.L.N. Tickell, 17 Knoll Court, Knoll Hill, Bristol BS9 1QX  
(W.L.N.Tickell@bristol.ac.uk).



Wandering Albatross *Diomedea exulans*, Bird Island, South Georgia 2005.  
Photo: Pete Bucktrout, BAS.

Birds take infinite care of their plumage, but many wandering albatrosses *Diomedea* sp. retain contaminated feathers on the sides of their heads and napes. No other albatrosses do so. In 1962-64 I examined 413 ringed Wandering Albatrosses *D. exulans* breeding at Bird Island, South Georgia, 244 of them confirmed breeding (Tickell 1980). About 75% of them were stained pink or orange, but less than 5% as much as on the bird illustrated. The vanes of small contour feathers had evidently been contaminated from the outside, rather than by secretions seeping up from glands or ear canals underneath, as suggested by Murphy (1936). Stains persisted on both males and females, especially birds that were spending more of their time at sea rather than on nests ashore. Feathers were sometimes wet, and in winter ice crystals formed on them. Years later, in the Tasman Sea far from any breeding ground, H. Battam (personal communication) tasted contaminated feathers and detected salt.

Two quite different fluids are evidently deposited on the feathers. Saline is secreted (excreted) from glands above the orbits of albatrosses and petrels (Schmidt-Nielsen 1959) and conveyed by ducts to the forward openings of the nasal tubes (Bang & Wenzel 1985). In sitting albatrosses, it flows from these openings down channels between the horny beak plates (culminicorn and latericorn) to the hooked end (unguis), where it may be seen accumulating as clear transparent drops hanging from the sharp tip. There, they increase in size and eventually drop off. Stomach-oil, in contrast, is the product of digested marine organisms, the food of petrels and albatrosses. Separation by density in the stomach (proventriculus) produces an oil, often coloured pink or orange (Matthews 1949, Warham 1977). It's a notorious projectile in aggressive and defensive encounters. Accompanied by retching sounds, the oil is squirted directly from the narrowed oesophageal opening, through the open mouth and beak.



**Fig 1.** The distinguishing characteristics of great albatross bills and nasal tubes: wandering albatrosses (left) and royal albatrosses (right) (Murphy 1936 II, Fig. 56, p.580).

In flight, air flows around the streamlined head, some of it into the nasal tubes, so fluid cannot flow passively down the beak. It has to be expelled with a force greater than that due to the bird's air speed. Petrels and albatrosses can send blasts of exhalant air out of their tubes. Schmidt-Nielsen (1959) likened it to a "water pistol", but his photograph of drops leaving those of a storm petrel were more likely to have been produced by a Venturi<sup>1</sup> effect. Something like that may happen in albatrosses, where ducts from the supra-orbital glands open into the nasal tubes (Bang & Wenzel 1985).

Exhaled saline in an aerosol, caught up in moving air, probably drifts backwards close to the feathered surface of the head. If something disturbs the (laminar) flow, turbulence may lift small contour feathers, allowing them to catch suspended droplets and contaminate the plumage. Saline by itself is unlikely to colour feathers, but when air is blown from the pharynx, small amounts of coloured stomach oil could be carried up through the internal nasal passages and become mixed with the saline.

Stains on wandering albatrosses invite curiosity about their absence on royal albatrosses, whose diets should produce similar stomach oil (Tickell 2000, Appendix 8). I know from personal observation that Northern Royal Albatrosses *Diomedea sanfordi* on the Chatham Islands excrete nasal saline. In 1990 close examination of more than a hundred sitting birds on Middle Sister Islet revealed no contaminated feathers like those on wandering albatrosses. Robert Cushman Murphy (1936) noticed differences between the shape of great albatross beaks (Fig.1). Those of royal albatrosses were broader with large bulbous nasal tubes, while wandering albatross beaks were not only narrower, but their nasal openings appeared to have been compressed laterally. Perhaps the characteristics of royal albatross beaks and nasal tubes permit them to project fluid droplets far enough into the airstream that they pass above turbulence, leaving the plumage clean?

<sup>1</sup> Lower pressure in faster moving air allows atmospheric pressure to force fluid up a tube opening into the moving air - as in a hand spray.

### Acknowledgments:

I thank Harry Battam (Southern Oceans Seabird Study Association) and recently Gary Lewis for their interest in this curious phenomenon. Andrew Wood at British Antarctic Survey helped me locate Peter Bucktrout, whose excellent photograph helps my words. While putting together these ideas I've been an Honorary Research Fellow in Biological Sciences at the University of Bristol.

### References:

Bang, B.G.; Wenzel, B.M. 1985. *Nasal cavity and olfactory system*. In (King, A.S. & McLelland, J. Eds.) *Form and Function in Birds* 3: 195-225.

Matthews, L.H. 1949. *The origin of stomach oil in the petrels, with comparative observations on the avian proventriculus*. *Ibis* 91: 373-392.

Murphy, R.C. 1936. *The Oceanic Birds of South America*. New York, American Museum of Natural History.

Schmidt-Nielsen, K. 1959. *Salt Glands*. *Scientific American*: January 109-114.

Tickell, W.L.N. 1980. *The pink ear stain of Wandering Albatrosses (Diomedea exulans)*. *Australas. Seabird Grp. Newsl.* 13: 12-17.

Tickell, W.L.N. 2000. *Albatrosses*. Pica Press, Sussex..

Warham, J. 1977. *The incidence, functions and ecological significance of petrel stomach oils*. *Proc. NZ. Ecol. Soc.* 24: 84-93.

## A FIVE-ALBATROSS DAY IN THE SOUTH ATLANTIC

By CPO Steve Copsey

When I received notice that I was to join HMS York in January 2011, I was very pleased because the ship was programmed to visit Gough Island in the Tristan Da Cunha group on our passage to the south Atlantic, for there were several resident birds of the group that I was keen to see, and especially the Sooty Albatross. Unfortunately the ship sprang a leak prior to sailing, so we had to spend two weeks in dry dock before departing, and as a result the Gough visit was cancelled.

Roll forward to a Tuesday in April. HMS York was now on passage from the Falklands to South Georgia, and as we had been on patrol the previous weekend we were enjoying a Sunday routine. That meant the end of the working day at ten o'clock for those not on watch, and shortly after ten I was in position on the flight deck, binoculars in hand. In the ship's wake were our resident escorts - Wandering Albatross, the iconic birds of the southern ocean, and Black-brows, together with Southern Giant Petrels, all jockeying for position off the stern. Soon a Light-mantled Sooty Albatross approached and cruised down the ship's side. This Albatross is a resident breeding bird of South Georgia along with the Wanderer so I was not very surprised to see it. The bird passed around the stern, stayed in the wake for a minute and then drifted away into the open ocean. An hour later I saw what I assumed to be my second Light-mantled Sooty but as it approached closer I could see the wholly chocolate coloured plumage; there was no light mantle to be seen. The bird approached closer still and I managed to see the colour of the sulcus on the bill. A Light-mantled would show blue but this bird had a yellow sulcus. Lo and behold, I had my Sooty Albatross after all. This bird approached the ship's stern but did not appear too keen to mix in with the other Albatrosses and Petrels and drifted away. As the bird disappeared from view I thought that was the last I would see of it, but what I assumed to be the same bird re-appeared several times over the next hour though it never came as close as the first pass. Eventually it disappeared from view not to be seen again. The light began to fade, and I was about to go below, pleased to have seen four species of Albatross in one day, when I saw what I thought was a juvenile Black-brow flying towards the ship. As it got closer I could see a dusky head and a yellow surround to the bill; my first Grey-headed Albatross of the trip, and another resident of South Georgia, had decided to show itself. Yes, I had expected to see it at some time or other, but to see it on that day made Tuesday 19 April a red letter day indeed.



Light-mantled Sooty Albatross *Phoebastria palpebrata*. Photo: Steve Copsey.

## BLACK SEA AND MEDITERRANEAN, MARCH 2010

By Julian Bell

Working offshore can give fascinating insights into the mechanics of bird migrations, as illustrated by a trip on a survey vessel to the Black Sea. It must be stressed that this was a working trip and as I was on day shift there was not actually much opportunity to watch birds - a fact that may not be apparent from the following text. The job was an oil pipeline inspection survey of two lines crossing the Black Sea from Samsun in Turkey over to Russia. The job was nearing completion when we joined the vessel MV Geosund in Samsun, on 3rd March. On completion of the job the vessel sailed west through the Bosphorus into the Mediterranean and ultimately to Algeciras in southern Spain.

In Samsun harbour there were flocks of Tufted Duck, plenty of Coot and several Great-crested Grebes as well as various gulls and large numbers of Cormorants.

As anyone who works at sea knows, vessels or installations can act very much as islands do in the way that birds are attracted to them. Other island similarities do not end there; I see a higher percentage of rare or 'good' birds offshore than I do at the non-island birding locations I frequent. Another similarity is that is easy to separate the migrants from the residents. Offshore everything is a migrant - and birds turn up onboard at any time of year. Two species that appeared onboard in middle of the Black Sea that I would not normally consider being migrants were Corn Bunting and Cetti's Warbler.



Night time picture of Corn Bunting *Emberiza calandra* offshore - taken with flash and a hand held 400mm lens. *Photo: Julian Bell.*





Migrant Cetti's Warbler *Cettia cetti* resting onboard. Photo: Julian Bell.

Migrants usually turn up in the same kind of conditions that produce falls on land. Overcast skies or even just haze on the horizon are often all it takes to start dropping birds on the deck: add a bit of wind or rain and numbers can increase rapidly. Such was the case in the Black Sea, when during the first few days of good weather small numbers of Skylarks, Yellowhammer, White Wagtail, a couple of Cormorants and a Rook were all that were seen onboard.



Yellowhammer *Emberiza citrinella* and Cormorant *Phalacrocorax carbo*.  
Photo: Julian Bell.

## *Sea Swallow 60 (2011)*

Seabirds were limited to occasional brief views of distant Yelkouan Shearwaters, a species that would put on a more spectacular showing later in the trip.

This all changed on 8th March when a flock of 150 or so Skylarks were seen circling the vessel in the murky predawn light. Despite it being cloudy all but a few of these moved on soon after daylight leaving a male Black Redstart, a few Stonechat, a White Wagtail and a Kestrel onboard. Birds that had been resting onboard during the night, including a Grey Heron and four Cormorants, also moved on at daybreak. Interestingly a Black-necked Grebe also joined the circulation around the vessel but instead of moving on it alighted on the sea shortly after dawn.



Skylark *Alauda arvensis*. Photo: Julian Bell.

With full cloud cover and no stars to guide them migrants are attracted by the lights of the vessel. Most of them do not actually alight but circle endlessly during the hours of darkness. This protracted circulation uses precious energy up and increases the risk of collision. Indeed on 8th and 9th of March 2010 several Skylarks were found dead on deck from such collisions. The scale of such incidences on a regional or global scale must be enormous if one considers the number of installations and vessels in operation.

Well after darkness on the 8th the familiar "chack-chack" calls of migrating Fieldfare were joined by Song Thrush, Blackbird and Redwings - these birds did not seem to alight but they were often seen flitting in and out of the darkness around the vessel. The atmosphere was charged with migration and the scene set for the following day.

On the morning of 9th March I looked out onto a small part of the deck in the predawn darkness and witnessed one of the largest offshore falls I have experienced. Passerines were absolutely everywhere - this one brief look outside produced six Black Redstart, at least one Corn Bunting, a Cetti's Warbler and plenty more besides, many of which went unidentified.

## ✧ *Sea Swallow 60* (2011)

Forsaking breakfast I dashed back to my cabin to grab my camera and had a go at documenting the event. During this time on deck a Black Redstart briefly landed on my shoulder! Flocks of Skylark and thrushes swirled in and out of the darkness and the night was full of calling birds. Typically the vast majority regained their bearings and moved on rapidly leaving only a small percentage to remain onboard to rest or feed. A Black Redstart and at least one Cetti's Warbler were among the stayers.



Black Redstart *Phoenicurus ochruros*. Photo: Julian Bell.

With all this going on I discovered that I had forgotten the battery charger for my camera. This led to a desperate remedy - one that worked just fine but is probably not to be recommended. That battery grip I've been thinking about buying moved right to the top of the list.

Later in the afternoon a Kittiwake flew past - a vagrant in these parts and possibly only the second ever photographed in Turkish waters.

There was little in the way of insects onboard in the Black Sea, although the Cetti's Warbler put in a commendable effort foraging through ropes and under containers. Some Black Redstarts and Robins were seen to fly up and grab occasional prey but it must have been slim pickings. During this trip a Kestrel and, perhaps surprisingly, a Rook caught and ate a number of Skylarks and probably other birds too. Raptors often stay around for a few days and the Kestrel seen this time was no exception.

Once work was completed in the Black Sea we set sail westwards to change crews off Athens. The passage through the Bosphorus was unfortunately undertaken in darkness but on 11th March we sailed through the Sea of Marmara in daylight - an experience of a lifetime for a hardcore seawatcher like myself. Thousands of Yelkouan Shearwaters passed in both directions, both into and out of the Black Sea where I had seen only a handful whilst we were working. Everything else seen that day, such as Great Egrets on the shores, paled into insignificance.

During the crew change off Athens on 12th March several Mediterranean Gulls and a few Sandwich Terns were seen alongside larger numbers of Black-headed and Yellow-legged Gulls. Sailing through the Mediterranean was fairly unproductive with just a single Cory's / Scopoli's Shearwater and a dead eastern Subalpine Warbler of note.

We left the ship off Algereiras in southern Spain before dawn on 18th March - with a flock of about 30 nocturnal Audouin's gulls feeding in the wash. A fitting end to a remarkable trip.



Yelkouan Shearwater *Puffinus yelkouan*. Photo: Julian Bell.



Antarctic Prions *Pachypula desolata*, South Atlantic Ocean, 18 Apr 2011.  
Photo: Steve Copsey.

## SV Geosund Pelagic List

Observer - Julian Bell

Black Sea pipeline inspection 2010

Date 2010	Time	Species	Count	Direction	Location	Lat	Long	
6/3/10		Yellowhammer	1		Black Sea	42.655N	37.608E	
6/3/10		Skylark	2		Black Sea	42.655N	37.608E	Alive
"		Skylark	4		Black Sea	"	"	dead
"		White Wagtail	1		Black Sea	"	"	
"		Common	1		Black Sea	"	"	
7/3/10		Yellow Shearwater	5		Black Sea	"	"	
8/3/10		Skylark	150+		Black Sea	42.180N	37.362E	
"		Black Redstart	1		Black Sea	"	"	male
"		Grey Heron	1		Black Sea	"	"	roosted onboard
"		Black-necked Grebe	1		Black Sea	"	"	Circled vessel and landed on the sea around dawn
"		Stonechat	3		Black Sea	"	"	2 male, 1 female
"		Kestrel	1		Black Sea	"	"	
"		Y-L / Herring Gull	1		Black Sea	"	"	
"		Fieldfare	?		Black Sea	"	"	heard after dark
"		Song Thrush	?		Black Sea	"	"	"
"		Redwing	?		Black Sea	"	"	"
"		Blackbird	?		Black Sea	"	"	"
9/3/10	05:30	Black Redstart	6		Black Sea	41.750N	37.233E	
"	"	White Wagtail	4		Black Sea	"	"	
"	"	Skylark	6		Black Sea	"	"	Alive
"	"	Skylark	3		Black Sea	"	"	dead
"	"	Kestrel	1		Black Sea	"	"	
"	"	Robin	1		Black Sea	"	"	
"	"	Cetti's Warbler	2		Black Sea	"	"	
"	"	Corn Bunting 1+	Black Sea		"	"	"	
"	"	Chaffinch	?		Black Sea	"	"	heard only
"	"	Fieldfare	?		Black Sea	"	"	heard only
"	"	Blackbird	?		Black Sea	"	"	heard only
"	1300	Kittiwake	1		Black Sea	41.900N	36.467E	
10/3/10		Yellow Shearwater	1		Black Sea	42.000N	31.750E	
"		Rook	3		Black Sea	"	"	Flying south
"		White Wagtail	1		Black Sea	"	"	on deck
11/3/10		Yellow Shearwater	1000's		Marmora Straits	41.22N	29.13E	
"		Yellow-legged Gull	5		Marmora Straits	41.22N	29.13E	
"		Mediterranean Gull	15		Marmora Straits	41.22N	29.13E	
"		Great Egret	6		Marmora Straits	41.14N	29.07E	resting on shoreline
"		Grey Heron	4		Marmora Straits	41.14N	29.07E	resting on shoreline
"		Shelduck	2		Marmora Straits	41.14N	29.07E	
12/3/10		Mediterranean Gull	20		Off Athens	37.84N	23.54E	
"		Black-headed Gull	100's		Off Athens	37.84N	23.54E	
"		Sandwich Tern	1		Off Athens	37.84N	23.54E	
"		Yellow-legged Gull	100?		Off Athens	37.84N	23.54E	
15/3/10		Scopoli's Shearwater	1		Mediterranean	36.837N	12.907E	
"		Subalpine Warbler	1		Mediterranean	"	"	male, dead on deck
"		Black Redstart	1		Mediterranean	"	"	male, dead on deck

## SOOTY TERN GEOLOCATOR

By Andrew Bray

The Army Ornithological Society (AOS) organised a Joint Service scientific expedition in March 2011 to Ascension Island to monitor various bird populations as part of the Seabird Restoration Programme. This was the 16<sup>th</sup> expedition to the Island by the AOS. The expedition enhances the work carried out by the local conservation office by concentrating on the Sooty Tern *Onychoprion fuscatus* population. The Sooty Tern on Ascension is unique in that it has a breeding cycle of 9.6 months rather than yearly as with other populations. Over the years the AOS has built up an invaluable long term data set on the Sooty Terns. There are two main breeding areas, at Mars Bay and Waterside, were just over 3kms apart on the south west coast.

A major task this trip was to attach Geolocators to 20 birds. The Geolocators were funded by the University of Birmingham, The RSPB, The Royal Navy Bird Watching Society (2 Geolocators) and the AOS. We have good long term data for the birds whilst breeding but we have no knowledge of where they go once they head out to sea. All we have is anecdotal evidence from passing yachts virtually at Ascension. We know the young spend 5 years at sea on the wing before they return to breed. We suspect the adults head to parts of the ocean that are rich in sprat and squid, where deep cold currents mix with warmer waters. On a previous trip we had experimented with attaching Geolocators to birds using a harness but this did not work well. Technology now allows us to attach these tracking devices to rings on legs. The Geolocators are programmed to record the time of daylight from which we can determine longitude and latitude, and have to be recovered to download the data. To enhance the chances of re-trapping a bird with a device we have marked the birds with additional coloured rings and about 120 of their neighbours. We know that the birds are neighbour faithful rather than site faithful so if we locate one bird with the additional coloured rings, the birds with a Geocator will be close by. Unfortunately there are many things that could prevent the birds returning. To improve the likelihood of the birds returning, we ringed birds in a small group separated from the main group and thus likely to fail in breeding which will mean that they should be in the first wave of returning birds. Our first attempt at re-trapping will happen in early January 2012 and there will be another opportunity in October 2012.



Sooty Tern at nest, Ascension Island. Photo: Andrew Bray.

The Geolocators have to be attached after the ring has been fitted. This is a delicate job as the ring has to be firmly in place and a special licence is required. They have only a miniscule impact on the bird and with the rings weigh less than 2 grams. Once a bird was captured full biometrics were taken. These were put into a formula that had been devised from previous studies<sup>1</sup> to determine if it was likely to be a male or female. A blood sample was taken for each bird, to be used to confirm the sex of the bird since measurements only provide a 78% certainty. The aim was to have 10 male and 10 females. We put a numbered ring and coloured ring on the right leg of the bird. We then put a coloured ring and a plain metal ring on the left leg of the bird. We next wrapped sticky tape around the plain metal ring which bonds as it is stretched. We finally use 2 plastic tie grips to attach the Geolocator to the ring. Thus the Geolocator is stuck to the rings and as well as secured using the tie grips. The whole operation takes about 30 minutes per bird, and the birds are re-trapped a few days later to ensure that the rings still fit comfortably and there is no chaffing to the leg. It is expected that our results will form part of the case for an EU Net Biome project to ring Sooty Terns around the world to determine their movement at sea. This is an exciting scientific development in understanding these birds and our experience will also influence the fitting of Geolocators to other birds as well as Sooty Terns.

This was a very successful expedition, increasing the scientific application of our knowledge on Sooty Terns which are so unique on Ascension. Our thanks to members of the Service ornithological societies and the Ascension Island Conservation Office who worked together to improve our knowledge and understanding of birds on the Island. Finally, our thanks to RAF Ascension and HQ British Forces South Atlantic, as it is their support that allows the Services to continue to be highly regarded by the authorities responsible for the governance and conservation of UK Overseas Territories.



<sup>1</sup> S. J. Reynolds, G. R. Martin, L. L. Wallace, C. P. Wearn & B. J. Hughes (2008). *Sexing sooty terns on Ascension Island from morphometric measurements*. *Journal of Zoology* 274, 2-8.

## MASKED BOOBY RETURN TO THE ASCENSION ISLAND MAINLAND TO BREED

Boatswain Bird Island (BBI) is located just offshore on the eastern side of Ascension Island. Unlike the mainland it has remained cat and rat free and consequently the seabird colony there has continued to flourish. The species that breed on BBI are Masked Booby, Brown Booby, Red-footed Booby, Ascension Frigatebird (endemic), Common White Tern, Black Noddy, Red-billed Tropicbird, White-tailed Tropicbird and Madeiran Storm-petrel. In the past, prior to the introduction of rats and cats, the Letterbox Peninsula adjacent to BBI had provided an extension to the seabird colony.

After the apparently successful eradication of the Feral Cat from Ascension Island there had been recent reports that Masked Booby and possibly even Ascension Frigatebird had returned once more to the Letterbox Peninsula to breed. Consequently, one of the objectives of the Army Ornithological Society expedition to the island (25 Mar-9 Apr 11) was to conduct a thorough survey of Letterbox and the surrounding area to search for any breeding evidence. The survey was conducted on my last full day on the island (Friday 1 Apr 11) and even before we split into our predetermined pairs we encountered several Masked Booby on eggs / with chick beside the footpath to Letterbox.



Masked Booby *Sula dactylatra* on nest, Ascension Island. 1 April 2011.

*Photo: Tony Tindale.*



## *Sea Swallow 60* (2011)

I won what was probably the toughest survey route with Roger Dickey that involved climbing the nearby high ground of Little White Hill, Wig Hill and the lower slopes of White Mountain. Our efforts turned out not to be in vain as we recorded the GPS location of several remote active Masked Booby nests.



Juvenile Masked Booby *Sula dactylatra*, Ascension Island Mainland (Little White Hill), 1 April 2011. Photo: Tony Tindale.

Although eradication projects of alien species can be controversial, the return of breeding Masked Booby to the Ascension Island mainland shows just how effective they can be. Hopefully, in the not too distant future Letterbox will once again become the site of a thriving seabird colony as nature intended.

**Antony D Tindale**

## ‘HONEYMOON FLIGHTS’ OF THE SHORT-TAILED SHEARWATER

Short-tailed Shearwaters (*Puffinus tenuirostris*) or ‘muttonbirds’ return to Tasmania, Australia in late September from northern Pacific foraging grounds to take up temporary residence on coastal dunes, offshore islands and other remote coastal areas to lay eggs and fledge their chicks. The University of Tasmania has been monitoring the Wedge Island (43° 7' S, 147° 40' E) colony in southern Tasmania for the last eight years and has witnessed a dramatic decline of 16% per annum of breeding adults.

The island runs approximately north-south and is 1.6 km in length; at its widest point (east-west) it is around 0.5 km. Distinctive of this area, tall Jurassic dolerite cliffs stand at 60 m at the southern end of the island, whilst the northern end is rocky beach at sea level. The island is home to several breeding seabird species including Little Penguins (*Eudyptula minor*), White-breasted Sea Eagles (*Haliaeetus leucogaster*) and Fairy Prions (*Pachyptila turtur*). The journey out to the island in a small aluminum catamaran is often a rough one. Common and bottlenose dolphins as well as several species of albatross are often sighted during this bumper trip.

Prior to breeding, short-tailed shearwaters embark on long foraging trips over sub-Antarctic waters in order to replace energy reserves that were utilised during their trans-hemispheric migration. These trips, termed the pre-laying exodus flights or colloquially ‘honeymoon flights’, are critical for female birds who must obtain sufficient nutrient reserves for egg production, and also for males who must complete the first incubation shift. The Integrated Marine Observing System provided us with 40 geo-location tags allowing us to track the movements of the adults during the pre-breeding, incubation and chick rearing stages. Initial tracks have shown that many birds travel south west to the polar frontal region before they breed. Remarkably one adult tracked from early November embarked on a pre-laying exodus flight of over 10 000km for 30 days into the Indian Ocean to an area off the north west coast of Australia.

Short-tailed shearwater breeding is highly synchronous, with 85% of egg laying occurring in the last week of November. Most eggs will hatch between mid to late January. From then on adults will employ a bimodal foraging strategy, embarking on short local foraging trips (1-2 days) to feed the chick, and completing longer (9-17 days) trips to highly productive sub-Antarctic waters in order to replenish their own energy reserves. We undertook daily weighing of the chicks to determine their growth and the amount of food they were being given. From this we can make inferences about local food conditions.

Chicks will attain a maximum mass approximately 60 days after hatching; from that time on the adults begin to leave the breeding colony on their migration back to northern hemisphere wintering areas, leaving the chicks to fast for a period of two weeks before fledging. Probably the most remarkable aspect of shearwater breeding biology is that in late April the chicks will embark on a similar trans-hemispheric migration to northern foraging grounds in the northern Pacific and Bering Strait, using mechanisms we do not fully understand.



Short-tailed Shearwater *Puffinus tenuirostris*, Tasmania, Australia.

*Photo: Jaimie Cleeland.*

This season, with the assistance of the Captain Simpson Scholarship (RNBWS) we were able to combine stable isotope dietary analysis with our tracking data. Stable isotope analysis can be used in diet and movement studies and allows for assessment of prey trophic level. Combining tracking data with stable isotope analysis provides powerful information on important foraging areas and prey relationships.

The project is ultimately about conserving this species and indeed protecting the whole ecosystem that it lives in. As this area of the world becomes subjected to increasing pressures from fishing and tourism, as well as the effect of the East Australia Current, which is bringing warmer waters further south and for longer periods it is important to understand as much as we can so that problems can be prevented now and the risk of various threats such as introduced predators, competition with fisheries and pollution from marine traffic, quantified and minimised.

Since October we have had six wonderful trips out to the island, each of around ten days long. There are no facilities out on Wedge Island so volunteers were instructed to bring a tent and supplies. Each trip had different highlights. One sunny afternoon saw a visit from around 150 common dolphins herding fish towards the island's northern reef. Volunteers also witnessed the fledging of a sea-eagle chick, making its first flight. Wedge Island is a truly remarkable place, and I for one feel privileged to have spent my honours year out on one of Tasmania's most beautiful and rugged islands.

**Jaimie Cleeland**

## SOUTH GEORGIA PIPIT

HMS York paid a visit to the Island of South Georgia as part of its deployment in the April of 2011. I had made a mental list of bird species that I hoped to see during the visit; these were mainly seabirds that I would probably not see north of the Antarctic Convergence such as Blue and Snowy Petrels, Wandering, Grey Headed and Light Mantled Sooty Albatross all sprung to mind but I did not give much thought to birds that did not make a living from the sea. I knew that the South Georgia Pintail was a real possibility as it is known to be present around Grytviken, However the South Georgia Pipit was not even considered, even though I always hoped to see one. The reason behind my thinking was the fact that I knew the Pipits only inhabit outer islands and the more remote areas of the mainland, due to the predation of the species by the introduced rats. The Brown Rat was introduced to the island when sealers first visited and has remained, long after the hunters left.

The ship had two days at anchor just off King Edward Point and I was fortunate that I managed to get leave for both days. On the second day I was heading in the direction of Penguin River, about a two hour walk around Grytviken Bay, and the reward at the river is a small breeding population of King Penguins. On the walk to the river I kept stopping to view Antarctic Terns and South Georgia Shags. I was very happy when three South Georgia Pintail flew past and landed not too far away in a boggy area of native grasses. As I walked a little further something fluttered down to the beach from a grassy cliff edge in front of me. At first I assumed it was a piece of wind blown Kelp as great amounts of this seaweed are constantly washed up on the beaches. I looked closer down at the beach and was taken aback by the sight of a South Georgia Pipit standing among a pile of washed up Kelp on the beach ahead. I could not contain my excitement and hunched myself down as the bird approached. I could see quite clearly that the Pipit was busy picking up sand hoppers and suchlike from the Kelp. This feeding technique is nothing new to me as many birds in the Falklands such as the Tussac-bird, Cobb's Wren and numerous Waders all employ the same strategy. However, the sight of the South Georgia Pipit doing the same right in front of me was mind blowing. The bird approached closer still, continually feeding as it went. When it was within ten feet of me it flew back up to the cliff edge and disappeared into the longer grass.

I knew from walking around Grytviken Bay the previous day that this was one of the areas targeted by the South Georgia Heritage Trust's Rat Eradication Programme. I am fully

aware it is far too early to tell scientifically if this first phase of the programme has been successful; but could it be that this bird is one of the early pioneers, raised in a rat free area but now expanding back to reclaim old territories? I certainly hope so.

Steve Copey



South Georgia Pipit *Anthus antarcticus*.

Photo: Steve Copey.

**OBSERVATIONS OF SEXUAL DIMORPHISM AMONG  
THE SOUTHERN GIANT PETRELS *MACRONECTES GIGANTEUS*  
OF GOUGH ISLAND**

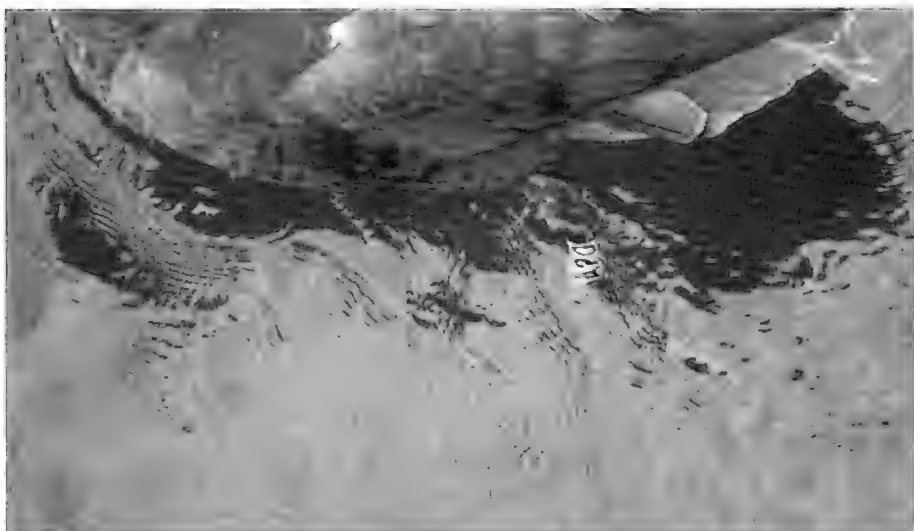
**By John Cooper and Graham C. Parker**

**Abstract**

Southern Giant Petrels *Macronectes giganteus* of Gough Island show marked sexual dimorphism in bill measurements with no overlap in culmen. Recaptured incubating birds assigned as males showed considerable wear to their metal bands within seven years whereas bands worn by assigned females showed no discernable wear over the same time period. This is thought to be due to the more terrestrial foraging behaviour of males compared with the more at-sea foraging behaviour of females. Eight birds colour-banded at Gough were seen at sea off Tristan da Cunha, c. 400 km away, while still breeding.

**Introduction**

The Southern Giant Petrel *Macronectes giganteus* breeds on islands throughout most of the Southern Ocean as well as on the Antarctic Continent (Patterson *et al.* 2001, ACAP 2010). Its most northerly breeding locality is on Gough Island in the South Atlantic, part of the United Kingdom's Tristan da Cunha Group, where at least 318 pairs bred in 2009/10 (Wolfaardt 2009). Salomon & Voisin (2010) have assigned the giant petrels of Gough to the subspecies *M. g. solanderi*, primarily based on their smaller size when compared with sub-Antarctic and Antarctic populations assigned to the nominate subspecies.



Assumed female colour-banded Southern Giant Petrels *Macronectes giganteus* A20 and C80 photographed off Tristan da Cunha, 1 October 2009. *Photo: John Cooper.*

During sporadic visits to breeding colonies on Gough by the senior author and others over a 20-year period (1989-2009; see also Cuthbert & Sommer 2004) Southern Giant Petrels incubating or brooding small chicks were metal-banded and others had their existing bands read on an *ad hoc* basis. It was found that banding unrestrained birds while they remained incubating or brooding caused no apparent disturbance with birds remaining on their nests during and after handling, a situation that apparently does not pertain at all colonies of the species within its range (e.g. at Marion Island, JC pers. obs.). It was realized during a colony visit in September 2009 by the authors that because of this lack of nervousness it would be feasible to commence a long-term demographic study with all the breeding birds within a chosen colony being both metal and colour banded.

A review of research priorities for albatrosses and petrels listed in the Agreement on the Conservation of Albatrosses and Petrels (ACAP) within the Tristan Group identified the species as a candidate for study (Wolfaardt 2009). As a consequence a demographic study of Southern Giant Petrels was initiated on Gough in the 2010/11 breeding season. Limited information collected on mensural and behavioural differences between the sexes during the first year of the study is briefly reported on here.

### Study site and methods

Southern Giant Petrels are known to breed at four widely-spread localities on Gough Island (Johnstone *et al.* 1976, Cuthbert & Sommer 2004, pers. obs.). The largest known colony, which is also the closest one to the South African weather station at Transvaal Bay, is situated (at its approximate centre) at 40° 20.652' S, 09° 56.415' W, above the island's west-coast cliffs and below Low Hump at an altitude of 354-389 m. In 2010 the birds bred in clusters of c. 15-50 nests spread over a relatively gently-sloping area of c. 210 by 100 m. The wet-heath vegetation (Ryan 2007) within the colony is dominated by Small Bog Grass *Scirpus bicolor*, Tussock Grass *Spartina arundinacea*, Bog Ferns *Blechnum palmiforme* and a few Island Trees *Phyllica arborea*, all severely pruned by giant petrels within one metre of their nests. Trampling and nest-material gathering by the giant petrels had exposed peat within one of the denser cluster of nests.

Seven visits of one to three days' duration were made to the Low Hump colony over the period 12 September-21 October 2010 during incubation and chick-brood stages. On the first visit all occupied nests were marked with numbered one-metre lengths of white 20-mm electrical conduit plastic piping and their positions recorded by hand-held GPS receiver and subsequently mapped. Birds present on nests containing eggs were colour-banded with yellow alpha-numeric plastic colour bands (Pro Touch Engraving, Canada, series A00-D19) on the left leg and metal banded (SAFRING stainless steel 9A 16-mm series) on the right leg. Birds already metal-banded during occasional visits to the colony in earlier years had the numbers and the condition (whether worn or not) of a sub-sample of the bands recorded. Bill measurements (culmen and bill depth at the gonys) were taken with Vernier callipers to the nearest 0.1 mm to aid in assigning sex. In addition, all incubating birds were photographed in profile, along with their numbered marker pole, with the aim of studying any changes in plumage and iris colour with advancing age over future breeding seasons. On subsequent visits occupied nests

were checked for unbanded partners (which were treated as above if present) and any nest failures recorded. Birds were processed without undue fuss while remaining on their nests in an incubating position. Only three birds temporarily left their nests during processing, of which only one took flight, but all returned within minutes and resumed incubation. No egg losses or desertions occurred during processing.

During a two-day stopover at the main island of Tristan da Cunha 413 km from Gough from 30 September to 2 October opportunistic daytime counts were made of Southern Giant Petrels attracted by recreational fishing activities aboard the m.v. *S.A. Agulhas* anchored 750 m offshore from the settlement of Edinburgh of the Seven Seas at 37° 05.45' S, 12° 18.29' W. All giant petrels observed were visually checked with binoculars for the presence of both metal and colour bands and attempts made to identify and photograph any colour bands seen.

## Results

A total of 163 occupied nests in the colony contained incubated eggs (one of which was already broken). One unoccupied nest was surrounded by fragments of fresh egg shell, showing that at least 164 eggs had been laid in the 2010/11 season. Within the colony a small number (not counted) of nests without eggs sometimes contained roosting birds, which ran or flew off on approach. In order to reduce disturbance no attempts were made to catch these non-breeding birds, including those that were metal-banded.

A total of 321 birds was processed as described above, of which 95 were already metal-banded. Both partners were processed at all but five nests which had lost their eggs and had been deserted between visits. At least one incubated egg was added.

A histogram of culmen against bill depth at the gonys of 150 pairs of incubating birds revealed a clear separation into two clusters (Fig 1). Birds whose partners were not measured and a pair with a bird with a recorded bill depth of 45.0 mm thought due to a transcription error have not been included in the analysis. In all cases the partners at each nest containing an egg fell into separate clusters. During handling it was always possible to assign incubating birds to a larger or to a smaller cohort size from tarsus, head and bill size and from general appearance. Based on measurements of sexed birds of this highly dimorphic species (Cooper *et al.* 2001 and references therein) and the gap of 2.9 mm in culmen measurements (Table 1) it is assumed that all the larger members of measured pairs are males and all the smaller ones are females.

Up to nine Southern Giant Petrels at a time could be checked for the presence of colour bands from the ship lying off Tristan da Cunha. Three birds colour-banded during the study (A20, C80 and D15) were observed off Tristan, respectively 19, 8 and 3 days after banding. The first two of these birds were photographed with their bands clearly legible (Fig. 2a,b). In all three cases the three birds were the smaller members of the pair and are thus assumed to be females. All the birds observed closely from the ship appeared to be of much the same size as the colour-banded birds when seen next to them, suggesting they too were all females. Five colour-banded Southern Giant Petrels were observed off Calshot Harbour, Tristan da Cunha

on 18 November 2010 (T. Glass *in litt.*). All had been banded at the Low Hump colony on Gough; three were assigned on bill measurements as females, two as males.

Ten of 23 metal bands read in the SAFRING series 9A-30351/30400 that had been placed on breeding birds in the colony seven years previously on 7 October 2003 by JC showed varying signs of wear, leading in one case to the number being partially illegible. Based on bill measurements 10 of 12 assigned males carried worn bands but none of the 12 assigned females did. The female bands appeared to be in near-pristine condition.

## **Discussion**

The limited information collected in the first year of the study supports the morphological and behavioural differences between the sexes that have been reported elsewhere from a number of breeding localities, as well as for smaller sample sizes from Gough Island (e.g. Conroy 1972, Johnstone 1977, Voisin & Bester 1981, Voisin 1982, Hunter 1987, Cooper *et al.* 2001, Copello *et al.* 2006, Carlos & Voisin 2008, Copello & Quintana 2009, Salomon & Voisin 2010). During the 2010/11 breeding season it is intended to record the appearance of the cloacae of a sub-sample of incubating birds to ascertain if dilation and colouration due to egg-laying can be used as an independent confirmation that the smaller members of breeding pairs are always females.

Differences between the sexes in diet and foraging behaviour are well known in giant petrels, with the smaller females foraging mainly at sea, whereas the larger males forage mainly by scavenging terrestrially on shorelines (Hunter 1983, 1987, Hunter & Brooke 1992, González-Solís *et al.* 2000a,b). To date, six colour-banded females and two males have been observed foraging off Tristan da Cunha during the 2010 breeding season. Further observations of colour-banded birds are necessary at sea, preferably coupled with remote tracking, to confirm any differences sea foraging distributions between male and female Southern Giant Petrels breeding on Gough Island.

The marked differences in wear of metal bands between the sexes over a seven-year period is considered to be due to the more terrestrial foraging behaviour of males when their bands come into regular contact with rocks on boulder beaches in penguin and seal colonies compared with the more at-sea foraging behaviour of females (Hunter 1987, Hunter & Brooke 1992, de Bruyn & Cooper 2005). Direct observations of the sexes of colour-banded birds foraging terrestrially on Gough Island are required to confirm this conclusion. What is clear is that the long-term demographic study of Southern Giant Petrels at Gough Island that has commenced will require the regular rebanding of male birds.

## **Acknowledgements**

Research on Southern Giant Petrels on Gough in 2010 was supported by a Captain Simpson Scholarship awarded to the senior author by the Royal Naval Birdwatching Society and



conducted with the approval of the Tristan Conservation Department. The support of the Royal Society for the Protection of Birds and the Directorate: Antarctica & Islands, South African Department of Environmental Affairs is gratefully acknowledged. Help with observations was given by Ross Cowlin, Richard Cuthbert, Patrick Green, Stephen Lucocq, Julian Repetto, Erica Sommer and David Whitelaw. Kalinka Rexer-Huber mapped the nests. Trevor Glass supplied information on colour-banded birds at Tristan da Cunha.

## References

- ACAP (2010). *ACAP Species Assessment Southern Giant Petrel *Macronectes giganteus**. Available at <http://www.acap.aq> (Accessed on 07 August 2011).
- Carlos, C. J. & Voisin, J.-F. (2008). *Identifying giant petrels, *Macronectes giganteus* and *M. halli*, in the field and in the hand*. *Seabird* 21: 1-15.
- Conroy, J. W. H. (1972). *Ecological aspects of the biology of the Giant Petrel, *Macronectes giganteus* (Gmelin), in the maritime Antarctic*. British Antarctic Survey Scientific Reports 75: 1-74.
- Copello, S. & Quintana, F. (2009). *Breeding biology of the Southern Giant Petrel (*Macronectes giganteus*) in Patagonia, Argentina*. *Ornitologia Neotropical* 20: 369-380.
- Copello, S., Quintana, F. & Somoza, G. (2006). *Sex determination and sexual size-dimorphism in Southern Giant-Petrels (*Macronectes giganteus*) from Patagonia, Argentina*. *Emu* 106: 141-146.
- Cooper, J., Brooke, M. de L., Burger, A. E., Crawford, R. J. M., Hunter, S. & Williams, A. J. (2001). *Aspects of the breeding biology of the Northern Giant Petrel (*Macronectes halli*) and the Southern Giant Petrel (*M. giganteus*) at sub-Antarctic Marion Island*. *International Journal of Ornithology* 4: 53-68.
- Cuthbert, R. J. & Sommer, E. S. (2004). *Population size and trends of four globally threatened seabirds at Gough Island, South Atlantic Ocean*. *Marine Ornithology* 32: 97-103.
- De Bruyn, P. J. N. & Cooper, J. (2005). *Who's the boss? Giant petrel arrival times and interspecific interactions at a seal carcass at sub-Antarctic Marion Island*. *Polar Biology* 28: 571-573.
- González-Solís, J., Croxall, J. P. & Wood, A. G. (2000a). *Foraging partitioning between giant petrels *Macronectes* spp. and its relationship with breeding population changes at Bird Island, South Georgia*. *Marine Ecology Progress Series* 204: 279-288.
- González-Solís, J., Croxall, J. P. & Wood, A. G. (2000b). *Sexual dimorphism and sexual segregation in foraging strategies of Northern Giant Petrels, *Macronectes halli*, during incubation*. *Oikos* 90: 390-398.

- Hunter, S. (1983). *The food and feeding ecology of giant petrels Macronectes halli and M. giganteus at South Georgia*. Journal of Zoology, London 200: 521-538.
- Hunter, S. (1987). *Species and sexual isolating mechanisms in sibling species of giant petrels Macronectes*. Polar Biology 7: 295-301.
- Hunter, S. & Brooke, M. de L. (1992). *The diet of giant petrels Macronectes spp. at Marion Island, southern Indian Ocean*. Colonial Waterbirds 15: 56-65.
- Johnstone, G. W. (1977). *Comparative feeding ecology of the giant petrels Macronectes giganteus (Gmelin) and M. halli (Mathews)*. Pp. 647-668 in: Llano, G. G. (Ed) *Adaptations within Antarctic ecosystems. Proceedings of the Third SCAR Symposium on Antarctic Biology*. Smithsonian Institution, Washington, D. C.
- Johnstone, G. W., Shaughnessy, P. D. & Conroy, J. W. H. (1976). *Giant-petrels in the South Atlantic: new data from Gough Island*. South African Journal of Antarctic Research 6: 19-22.
- Patterson, D. L., Woehler, E. J., Croxall, J. P., Cooper, J., Poncet, S., Peter, H.-U., Hunter, S. & Fraser, W. R. (2008). *Breeding distribution and population status of the Northern Giant Petrel Macronectes halli and the Southern Giant Petrel M. giganteus*. Marine Ornithology 36: 115-125 + on-line appendix at [www.marineornithology.org](http://www.marineornithology.org).
- Ryan, P. G. (Ed.). (2007). *Field guide to the animals and plants of Tristan da Cunha and Gough Island*. Pisces Publications, Newbury.
- Salomon, M. & Voisin, J.-F. (2010). *Ecogeographical variation in the Southern Giant Petrel (Macronectes giganteus)*. Canadian Journal of Zoology 88: 195-203.
- Voisin, J.-F. (2008). *Observations on the Falkland Islands Giant Petrel, Macronectes giganteus solanderi*. Gerfaut 72: 367-380.
- Voisin, J.-F. & Bester, M. N. (1981). *The specific status of giant petrels Macronectes at Gough Island*. Pp. 215-222 in: Cooper, J. (Ed.) *Proceedings of the Symposium on Birds of the Sea and Shore, 1979*. African Seabird Group, Cape Town.
- Wolfaardt, A. C., Glass, J. [P.] & Glass, T. (2009). *Tristan da Cunha implementation plan for the Agreement on the Conservation of Albatrosses and Petrels (ACAP): review of current work and a prioritised work programme for the future*. Government of Tristan da Cunha, Edinburgh, Tristan da Cunha.

**John Cooper**

**DST/NRF Centre of Excellence for Invasion Biology, Department of Botany and Zoology, Stellenbosch University**

**Private Bag X1, Matieland 7602, South Africa**

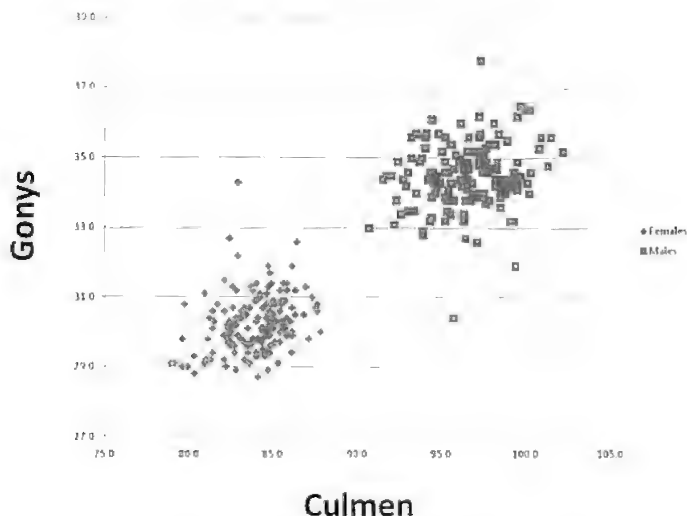
**E-mail: [john.cooper61@gmail.com](mailto:john.cooper61@gmail.com)**

**Graham C. Parker**

Royal Society for the Protection of Birds,

The Lodge, Sandy, Bedfordshire SG19 2DL, United Kingdom

(Current address: c/o 39 Seftons Road, RD3, Akaroa, New Zealand)



**Figure 1.** Plot of bill depth at the gonys against culmen (in mm) of 300 paired breeding Southern Giant Petrels *Macronectes giganteus* below Low Hump, Gough Island. The birds in the larger cluster are the larger members of each pair and assumed to be males, those in the smaller cluster are the smaller members of each pair and are assumed to be females (see text).

Assumed gender	Culmen(mean $\pm$ standard deviation & range)	Bill depth at gonys (mean $\pm$ standard deviation & range)
Males (this study; n=150)	96.4 $\pm$ 2.3 (90.7 - 102.2)	34.5 $\pm$ 0.9 (30.4 - 37.8)
Males (Voisin & Bester (1981; n=17)	95.2 $\pm$ 2.4 (91.5 - 98.5)	
Females (this study; n=150)	83.9 $\pm$ 1.8 (78.9 - 87.8)	30.3 $\pm$ 0.8 (28.7 - 34.3)
Females (Voisin & Bester (1981; n=12)	83.3 $\pm$ 2.5 (79.5 - 88.8)	

**Table 1.** Bill measurements (mm) of 300 paired Southern Giant Petrels *Macronectes giganteus* at Gough Island in 2010 and of unpaired Gough birds from Voisin & Bester (1981).

**A GUIDE TO THE BIRDS OF THE INDIAN OCEAN TERRITORY**

**By Peter Carr**

Pisces Publications 2011. ISBN 978-1-874357-47-6. 110 pages most in colour

Over the years the RNBWS has been at the forefront of ornithological advances within the British Indian Ocean Territory (BIOT), most notably with expeditions both in 2005 and 2007 to both estimate seabird populations and do a wider ornithological census of the islands. This initial work was carried forward by Peter Carr both during his time as a serving officer on Diego Garcia and, more recently, in his full time post as a conservation officer for the area.

This guide is a little gem. For such a small publication it is packed full of everything you need to know about BIOT and its birds. It is more than an identification guide; it serves as a pocket avifauna of the area. The knowledge that RNBWS members have added is well recognised and the Society and Pete should be proud that it is their efforts that have made the publication of such a comprehensive document possible.

Getting to the archipelago is still not easy, but anybody who is lucky enough to make the journey should not go without a copy of this book.. For me it will bring back memories of the two weeks I spent there in 2005 in the company of Pete and other colleagues - great birding in a unique part of the world.

**Gary Lewis**

# ***Royal Naval Birdwatching Society***

(Registered Charity 207619)



## **Gift Aid Declaration**

*My Full Name:*

*My Address (inc Postcode):*

---

---

---

*Date:*

---

I want the Royal Naval Birdwatching Society to treat the following as Gift Aid donations  
(delete as appropriate)

- The enclosed donation of £. . . . .
- The donation of £. . . . . I made on . . . . . (dd/mm/yyyy)
- All donations I have made since 6 April 2000, and all donations I make from the date of this declaration until further notice.

*Signed:*

I know that I must pay an amount of income/capital gains tax at least equal to the tax the charity reclaims on my donations in that tax year.

# **Royal Naval Birdwatching Society**

## **Joining Form**



I am interested in joining the RNBWS and wish to be enrolled as

( ☒ as appropriate)

- ☐ **£12 - Full Member** - Serving or Retired member of HM Forces or the Mercantile Marine.
- ☐ **£12 - Associate Member** - Any one with an interest in Seabirds and Birds in the Maritime Environment.
- ☐ **£12 - Library Member** - *Sea Swallow* only.
- ☐ **Free - Exchange Member** - An organisation which exchanges journals with the RNBWS.

**Completed Bankers order has been forwarded to the Treasurer**

*Rank / Name / Decorations*

---

*Mailing Address (to which Sea Swallow will be sent)*

---

---

*E-Mail and Web:*

*Tel:*

---

*Alternative Address:*

---

---

*E-Mail and Web:*

*Tel:*

---

**Please return to: Steve Copsey, 20 Shepard's Close, FAREHAM, Hants PO14 3AJ**

***Royal Naval Birdwatching Society***  
***Sea Swallow* Back Issues Order Form**



If in stock please provide the following back issues of *Sea Swallow*:

---

---

*Name*

---

---

---

*Mailing Address (to which Sea Swallow will be sent)*

*E-Mail and Web:*

*Tel:*

I enclose a remittance of £. . . . . (£4 per Issue) plus postage cost per 3 issues of £1 for UK, £1.50 for the EU or £2.00 for the ROW.

For Money Order Transactions RNBWS Account details are:

Sort Code: 30-99-71 A/C No: 00117948  
IBAN No: GB86LOYD30997100117948  
BIC Code: LOYDGB21179

**Please return to: Steve Copsey, 20 Shepard's Close, FAREHAM, Hants PO14 3AJ**

# **Royal Naval Birdwatching Society**

## **Bankers Order Form**



To: *(Banker's Name)*

Address:

On the \_\_\_\_\_ And thereafter each 1st January unless I instruct you in writing  
to the contrary, please remit to

**The Manager, Lloyds TSB, 49 High St, WINCHESTER, Hants SO23 9BU**

for the account of the

**Royal Naval Birdwatching Society,**

**Sort Code 30-99-71 Account No 00117948**

the sum of £ \_\_\_\_\_ and debit my Account.

**A/C details:**

*Sort Code*

*Account No.*

Note: This order supersedes any previous order in force with the above Society which  
should therefore be cancelled.

*Signature:*

*Print Name:*

*Address:*

*Date:*

Please send this form to the Hon Treasurer RNBWS, CPO Steve Copsey,  
20 Shepards Close, FAREHAM, Hants PO14 3AJ;  
([copsey@tesco.net](mailto:copsey@tesco.net)) who will forward it to your bank.



## USEFUL ADDRESSES

**Hon. Member and Adviser RNBWS:** Dr Russell Wynn, The National Oceanography Centre, Senior Research Scientist, Marine Geology & Ecology, European Way, Southampton SO14 3ZH T 023 805 96553 E [rbw1@noc.soton.ac.uk](mailto:rbw1@noc.soton.ac.uk)

### RNBWS LOCAL REPRESENTATIVES - UNITED KINGDOM

**Dartmouth:** Dr Richard Porter, Britannia Royal Naval College, DARTMOUTH, Devon TQ6 0HJ T 01803 837233 E [rrrporter@aol.com](mailto:rrrporter@aol.com)

**Portsmouth Area:** Lt Cdr B F Witts OBE FRGS RN, Oakwood, Duffield Lane, Woodmancote, EMSWORTH, Hants PO10 8PZ (01243 371497).

**Portland:** Martin Cade, Portland Bird Observatory and Field Centre, Old Lower Light, PORTLAND, Dorset T 01305 820553 Daytime only E [obs@btinternet.com](mailto:obs@btinternet.com)

**Humber Area:** Bill Curtis, Farm Cottage, Church Lane, ATWICK, Nr DRIFFIELD E Yorks YO25 8DH T 01964 532477 E [cwfcurtis@aol.com](mailto:cwfcurtis@aol.com)

### RNBWS LOCAL REPRESENTATIVES - OVERSEAS

**Arabian Gulf:** Colin Richardson PO Box 62893, 8069 PAPHOS, Cyprus T 00357 26946682 E [richar@cytanet.com.cy](mailto:richar@cytanet.com.cy)

**Australia:** Captain N G Cheshire MN, 7 Hodge Avenue, Encounter Bay, South Australia 5211, Australia T 61 8 855 27904 E [diomedea@bigpond.com](mailto:diomedea@bigpond.com)

**Black Sea:** Gabriel Banica, Str. 1 Decembrie 1918 m- 3, BIFIT Ap49, 8700 CONSTANTIA, Romania E [gabibiosys@yahoo.com](mailto:gabibiosys@yahoo.com)

**Bombay:** Aasheesh Pittie E [aasheesh.pittie@gmail.com](mailto:aasheesh.pittie@gmail.com)

**Falkland Islands:** Ian Strange, The Dolphins, PORT STANLEY, Falkland Islands.

**Gibraltar:** Charlie Perez, GONHS, Strait of Gibraltar Bird Observatory, PO Box 843 Gibraltar E [cperez@gibraltar.gi](mailto:cperez@gibraltar.gi)

**Madeira:** Dr Francis Zino, Avenida do Infante 26, Rez-do-Chao 'C', 9000 FUNCHAL, Madeira T 63292 E [nop11015@mail.telepac.pt](mailto:nop11015@mail.telepac.pt)

**Naples:** Mark Walters, 181 Via Morghen, Vomero, NAPLES, Italy. E [markw@netlab.it](mailto:markw@netlab.it)

**USA:** Dr R G Wolk PhD, 6001 Clare Court, RALEIGH, North Carolina 27609, USA. T 919 848 4812 E [rgwolk@gmail.com](mailto:rgwolk@gmail.com)

## INSTRUCTIONS TO AUTHORS

Interested persons are invited to submit contributions for *Sea Swallow*; authors do not need to be RNBWS members. Material may take the form of papers, notes, progress reports, letters or reviews. The style used in *Sea Swallow* should be followed, with the standard abbreviations, nomenclature and use of references. Ideally submissions should be in MS Word or rtf format, but other formats are acceptable. Graphics should be jpeg or tiff. Manuscripts should be typed in double spacing, together with figures and diagrams. Accompanying photographs are welcome. Contributions are welcome at any time, but if for inclusion in the next edition must reach the Editor by 30 June.